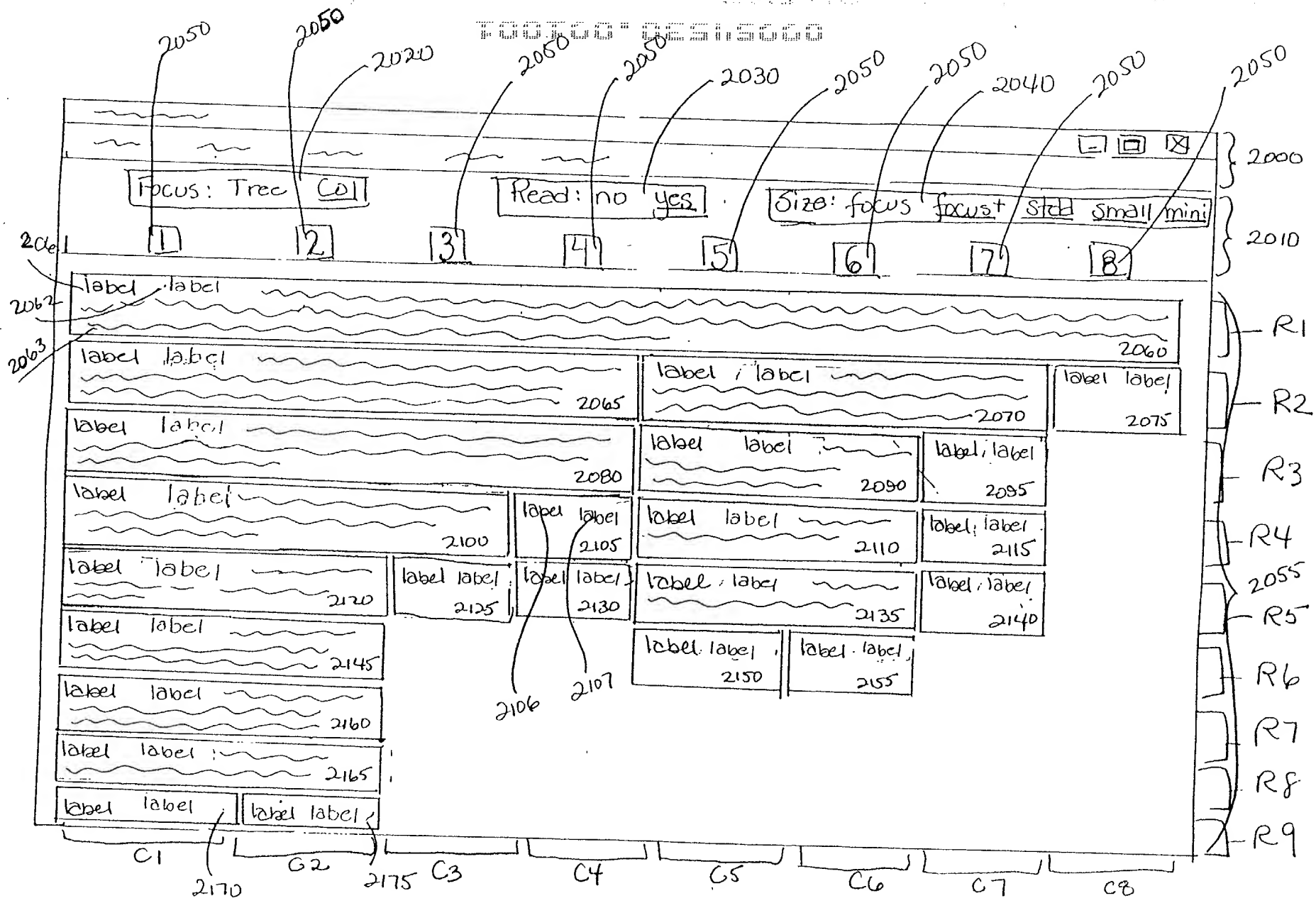

2050
2020
2060
2030
2040
Focus: Tree Col
Read: no yes
Size: focus focus+ Std Small mini
2000
2010
1
2
3
4
5
6
7
8
2061
2062
2063
label label
2060
2065
2070
2075
2080
2090
2095
2100
2105
2110
2115
2120
2125
2130
2135
2140
2145
2150
2155
2160
2165
2106
2107
2055
R1
R2
R3
R4
R5
R6
R7
R8
R9
C1
C2
C3
C4
C5
C6
C7
C8
2170
2175

Fig. 1

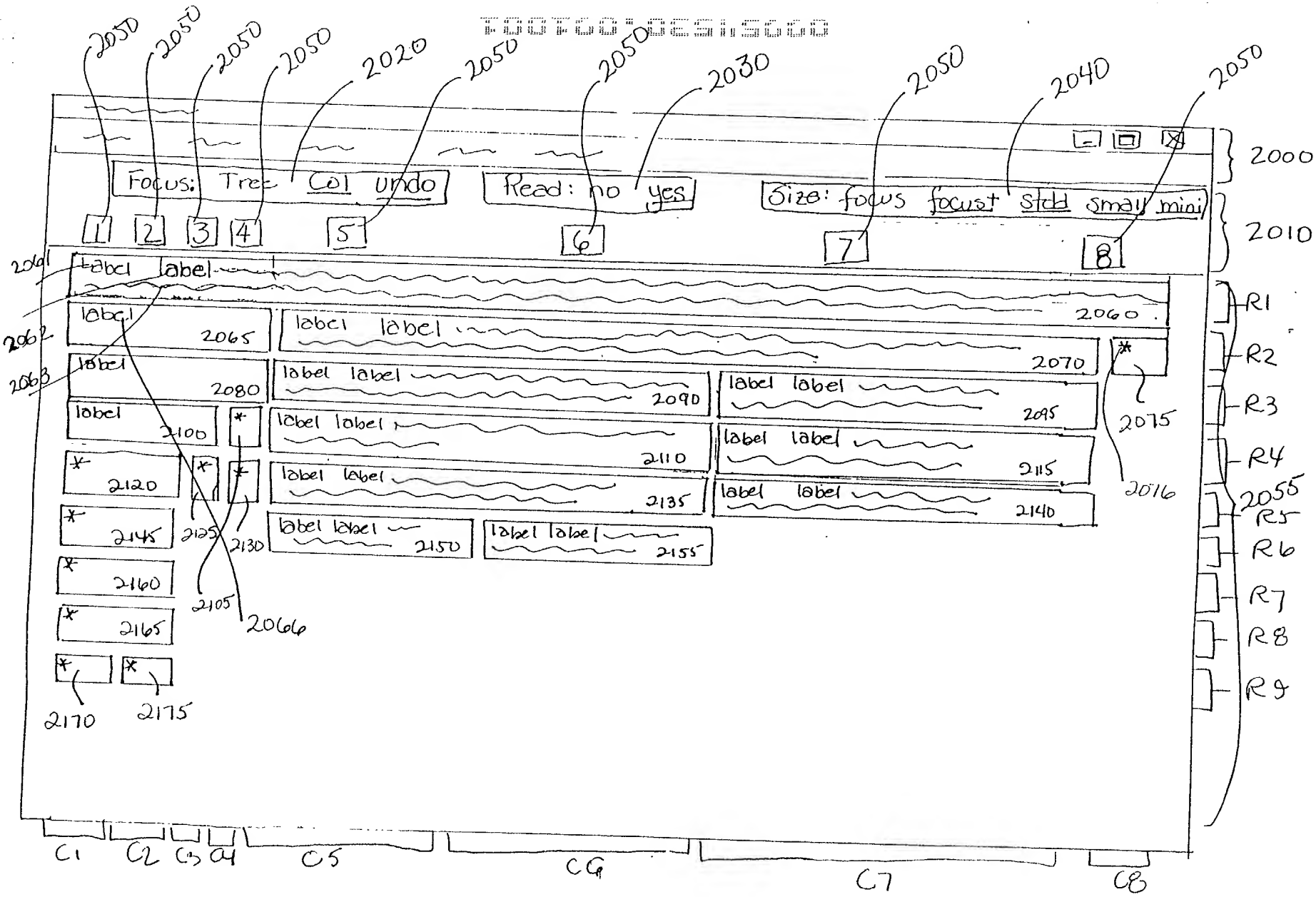

2050
2050
2050
2050
2020
2050
2050
2030
2050
2040
2050
2000
Focus: Tree Col undo
Read: no yes
Size: focus focust stdd small mini
2010
1
2
3
4
5
6
7
8
2061
label label
2060
2062
label
2065
label label
2070
2063
label
2080
label label
2090
label label
2095
label
2100
label label
2110
label label
2115
2120
label label
2135
label label
2140
2145
label label
2150
label label
2155
2160
2165
2170
2175
2125
2130
2105
20666
2075
2016
2055
R1
R2
R3
R4
R5
R6
R7
R8
R9
C1
C2
C3
C4
C5
C6
C7
C8

Fig 2

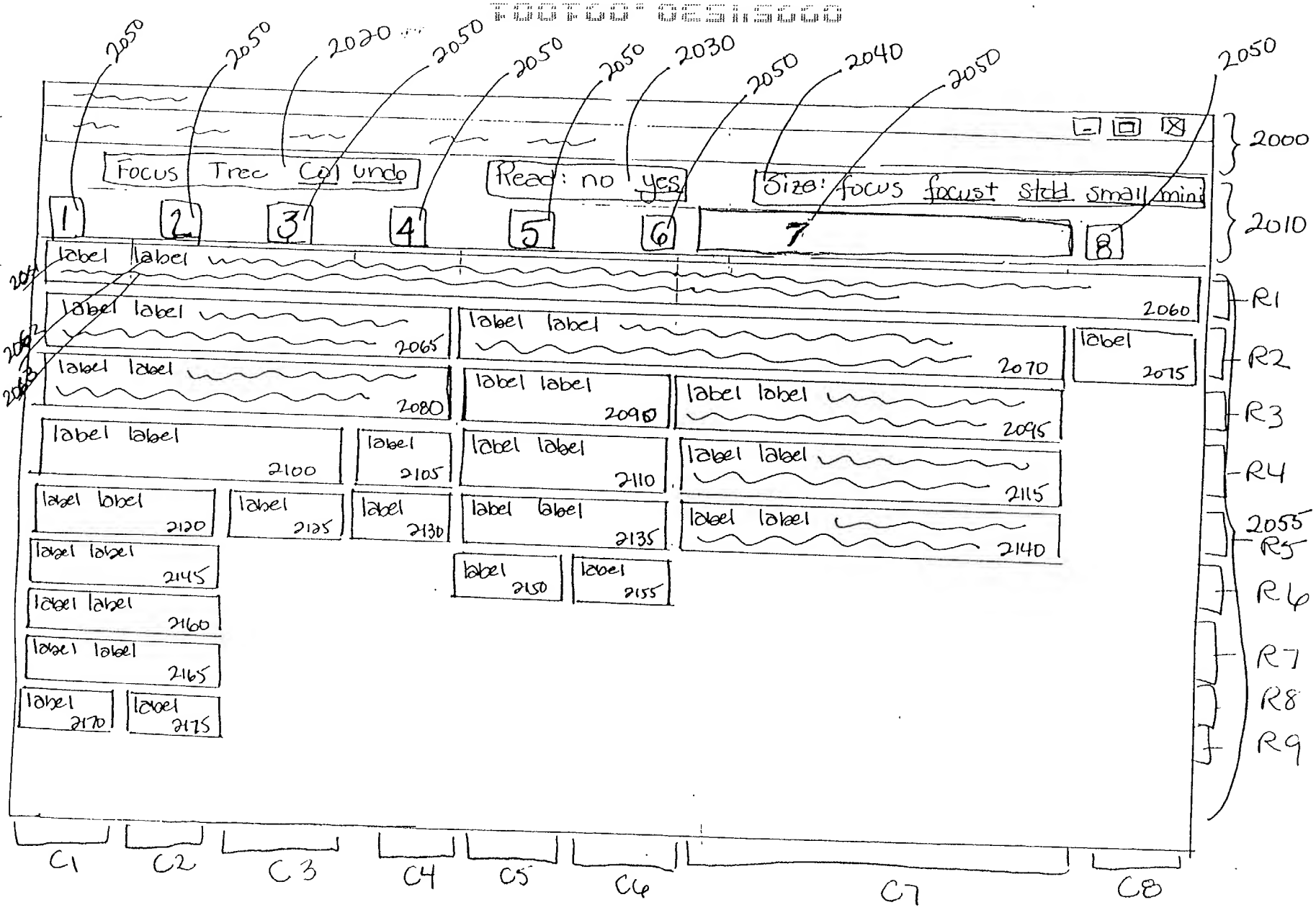

2050
2050
2020
2050
2050
2050
2030
2050
2040
2050
2050
2000
Focus Tree Col undo
Read: no yes
Size: focus focust stdd small mini
2010
1
2
3
4
5
6
7
8
label label
2060
label label
2065
label label
2070
label
2075
label label
2080
label label
2090
label label
2095
label label
2100
label
2105
label label
2110
label label
2115
label label
2120
label
2125
label
2130
label label
2135
label label
2140
label label
2145
label
2150
label
2155
label label
2160
label label
2165
label
2170
label
2175
2041
2042
2043
R1
R2
R3
R4
2055
R5
R6
R7
R8
R9
C1
C2
C3
C4
C5
C6
C7
C8

Fig. 3

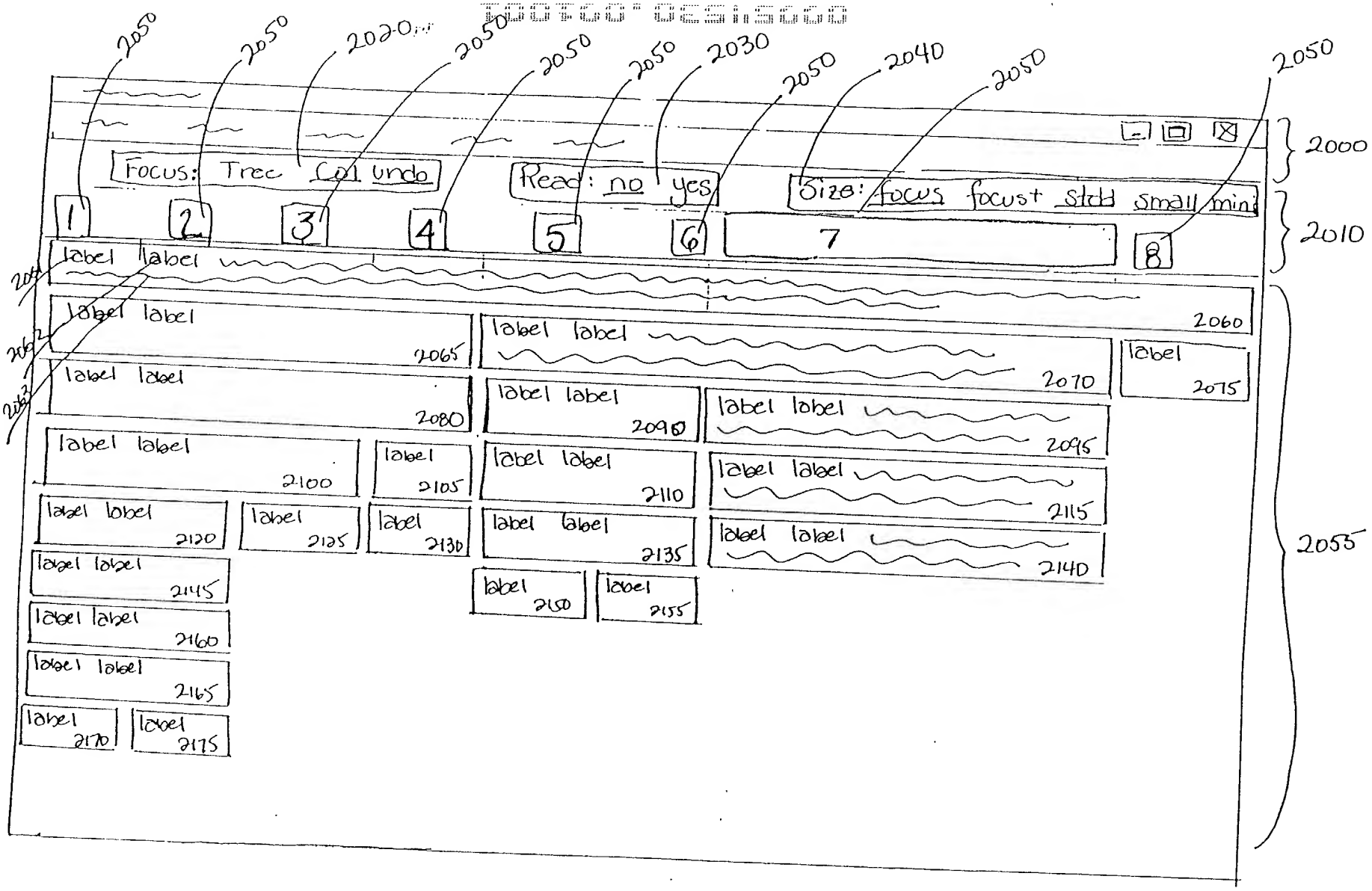

2050
2050
2020
2050
2050
2050
2030
2050
2040
2050
2050
2000
Focus: Tree Col Undo
Read: no yes
Size: focus focust stdd small mini
2010
1
2
3
4
5
6
7
8
label label
2060
2065
2070
2075
2080
2090
2095
2100
2105
2110
2115
2120
2125
2130
2135
2140
2145
2150
2155
2160
2165
2170
2175
2055

Fig. 4

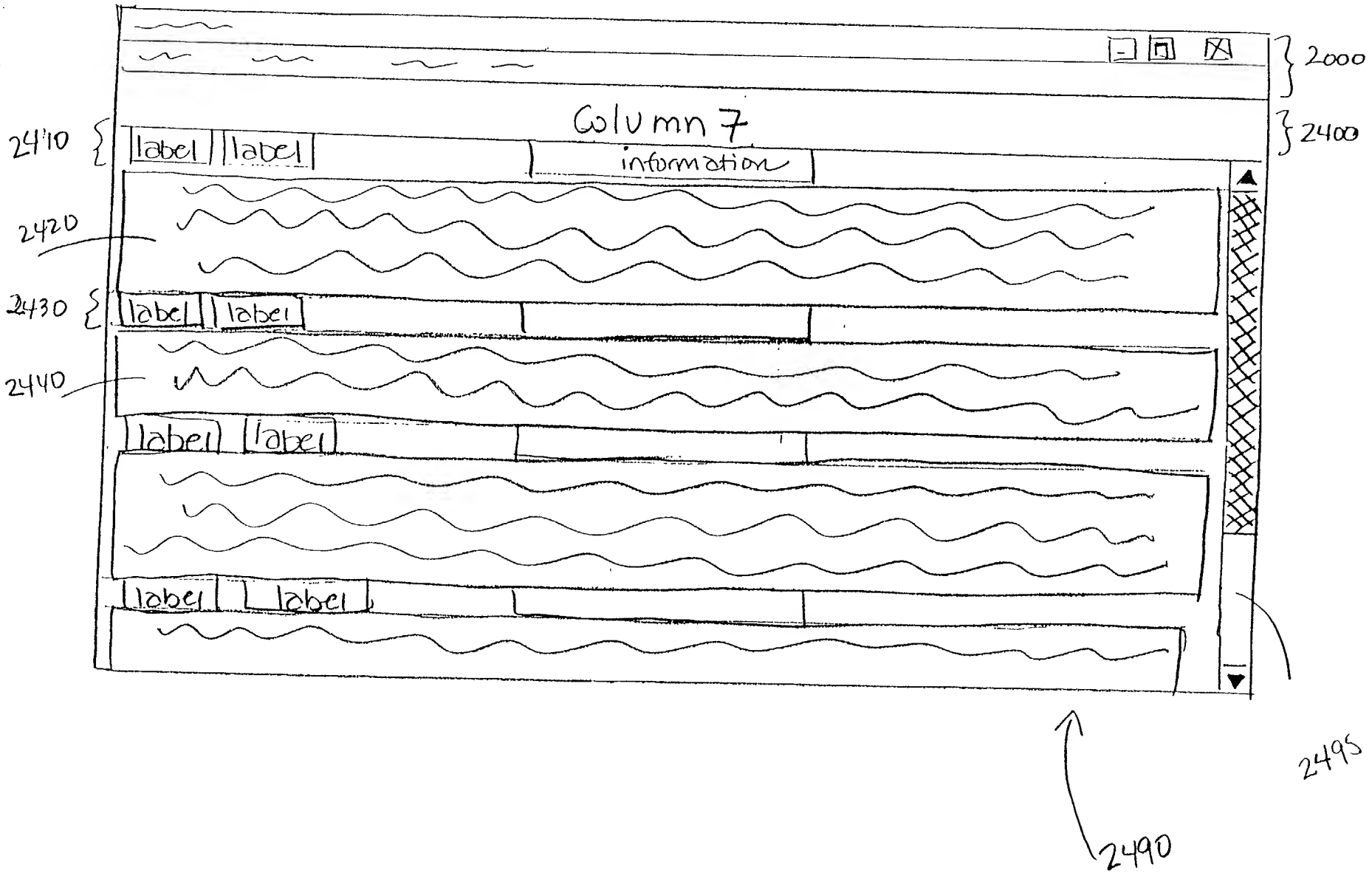


Figure 5

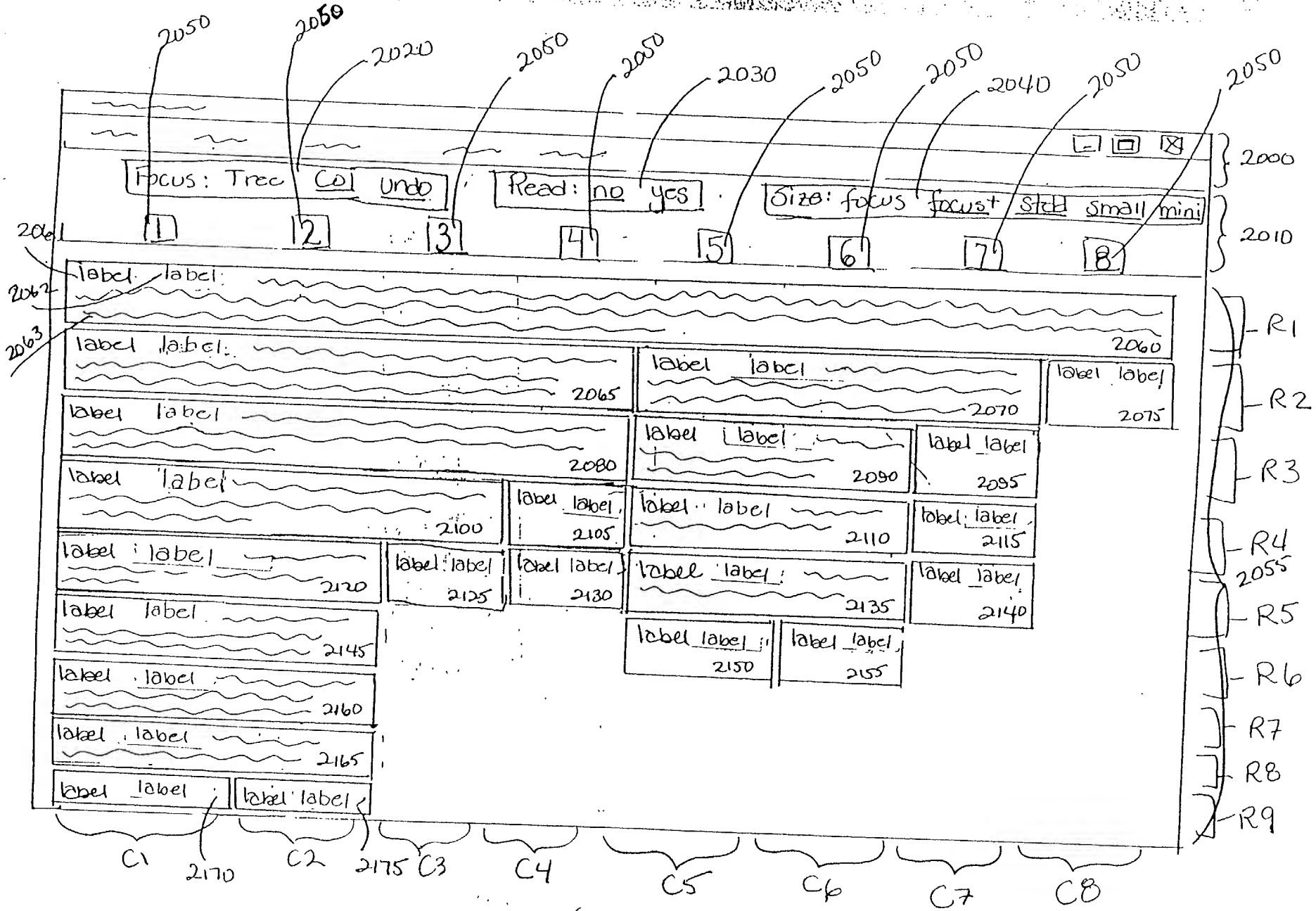

2050
2020
2030
2040
Focus: Tree Col Undo
Read: no yes
Size: focus focus+ Std small mini
2000
2010
1
2
3
4
5
6
7
8
2061
2062
2063
label label
2060
2065
2070
2075
2080
2090
2095
2100
2105
2110
2115
2120
2125
2130
2135
2140
2145
2150
2155
2160
2165
2055
R1
R2
R3
R4
R5
R6
R7
R8
R9
C1
2170
C2
2175
C3
C4
C5
C6
C7
C8

Fig. 6

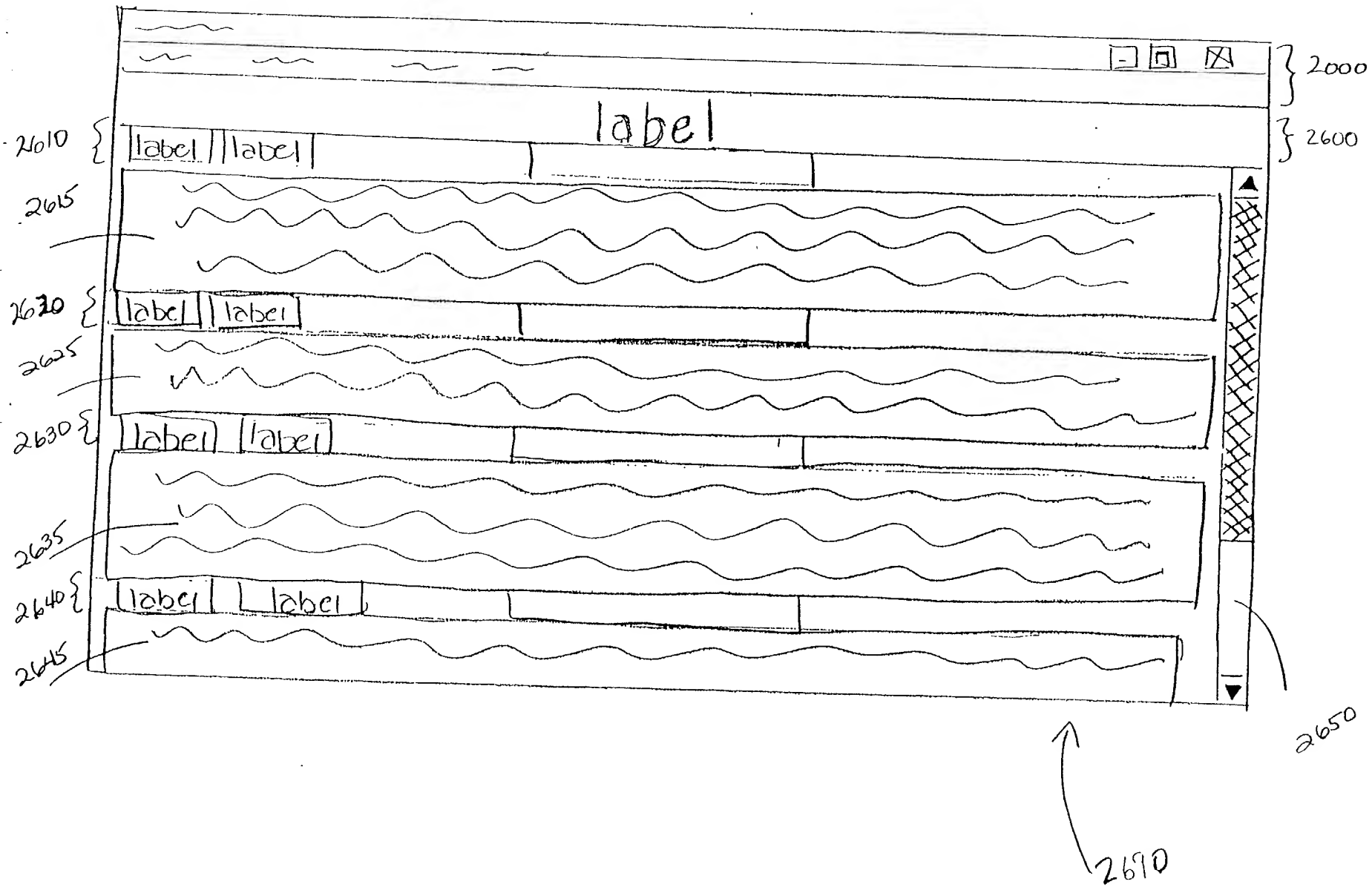

2000
label
2600
2610
label
label
2605
2620
label
label
2625
2630
label
label
2635
2640
label
label
2645
2650
2610

Figure 7

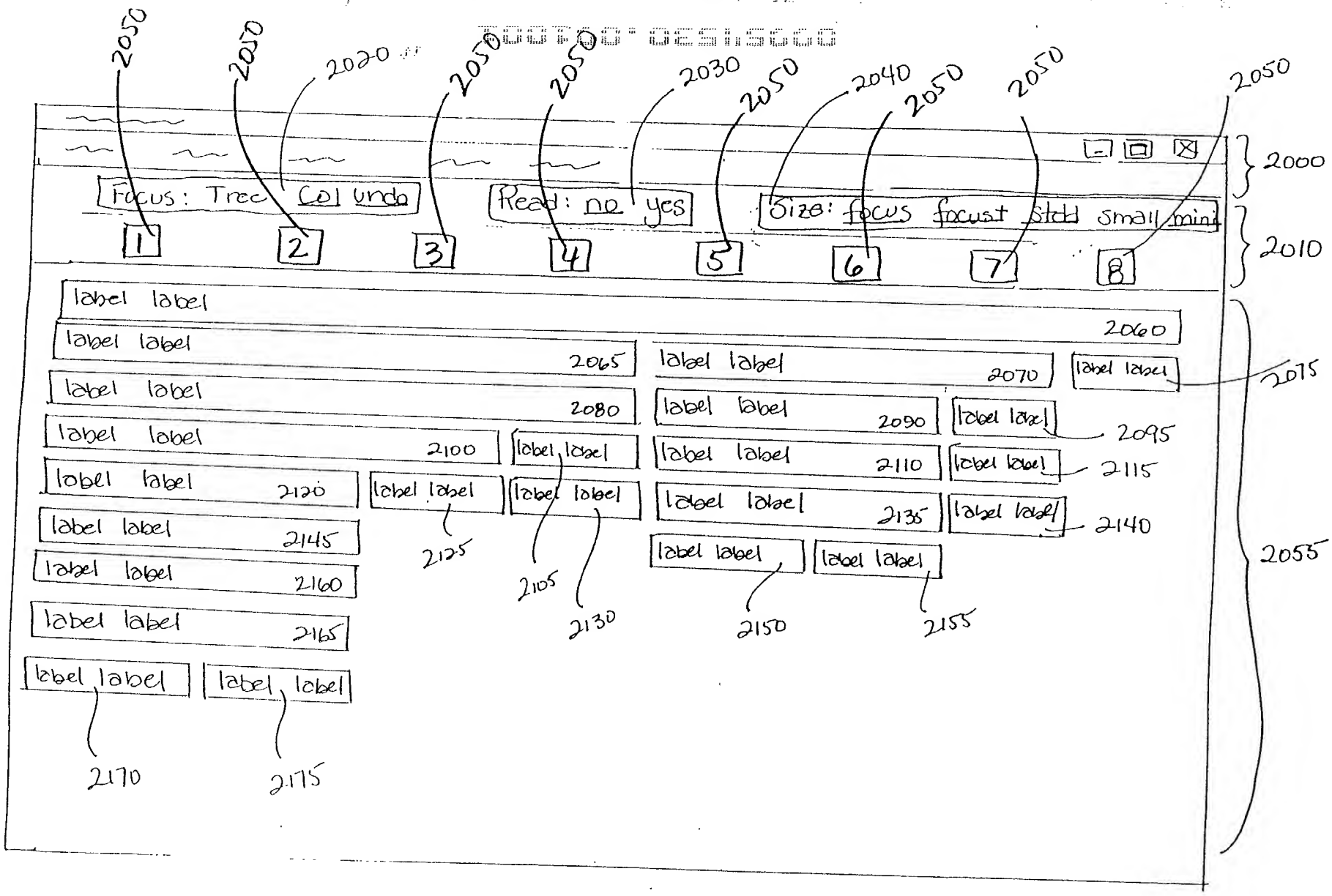

2050
2050
2020
2050
2050
2030
2050
2040
2050
2050
2050
2000
Focus: Tree Col Undo
Read: no yes
Size: focus focust Stdd small mini
2010
1
2
3
4
5
6
7
8
label label
2060
label label 2065
label label 2070
label label
2075
label label 2080
label label 2090
label label
2095
label label 2100
label label
label label 2110
label label
2115
label label 2120
label label
label label
label label 2135
label label
2140
label label 2145
2125
2105
2130
label label
label label
2055
label label 2160
2150
2155
label label 2165
label label
label label
2170
2175

Fig. 8

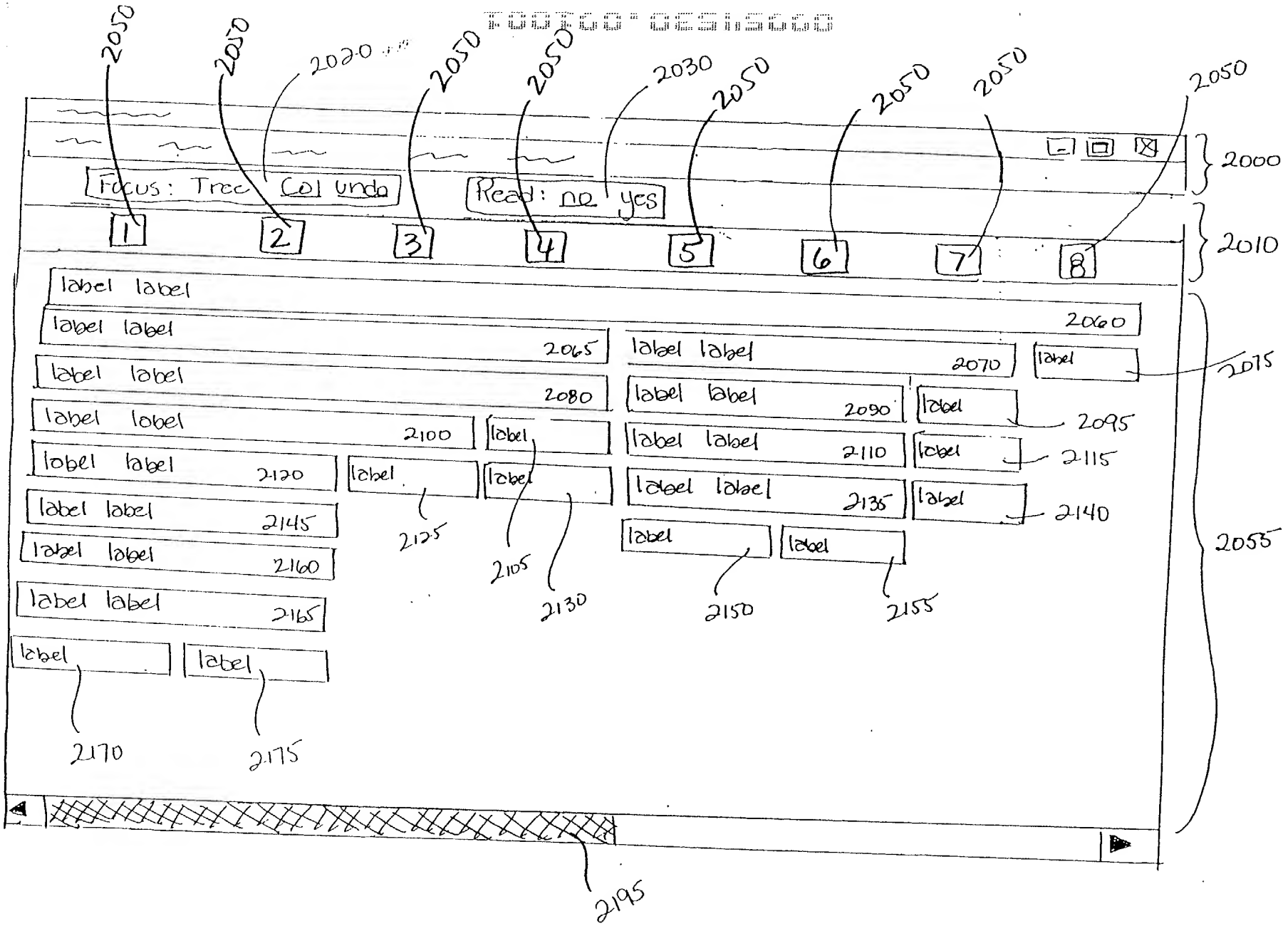

2050
2050
2020
2050
2050
2030
2050
2050
2050
2050
Focus: Tree Col Undo
Read: no yes
2000
1
2
3
4
5
6
7
8
2010
label label
2060
label label
2065
label label
2070
label
2075
label label
2080
label label
2090
label
2095
label label
2100
label
label label
2110
label
2115
label label
2120
label
label
label label
2135
label
2140
label label
2145
label
label
2125
2105
2130
2150
2155
label label
2160
label label
2165
label
label
2170
2175
2055
2195

Fig. 9

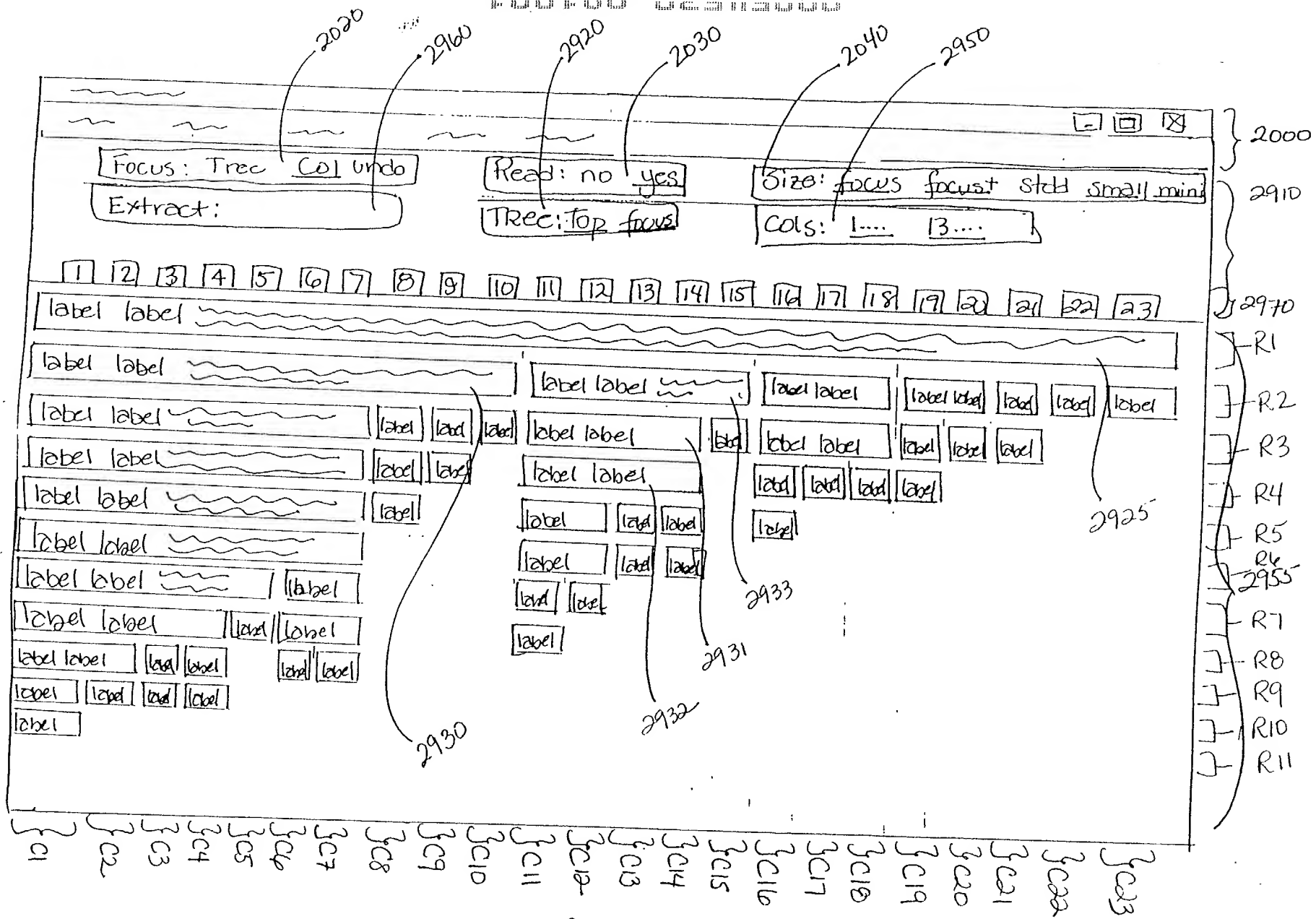

2020
2960
2920
2030
2040
2950
2000
Focus: Trec Col Undo
Extract:
Read: no yes
TRec: Top focus
Size: focus focus+ std small mini
Cols: 1.... 13....
2910
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
2970
label
2930
2931
2932
2933
2925
2955
R1
R2
R3
R4
R5
R6
R7
R8
R9
R10
R11
C1 C2 C3 C4 C5 C6 C7 C8 C9 C10 C11 C12 C13 C14 C15 C16 C17 C18 C19 C20 C21 C22 C23

Fig 10

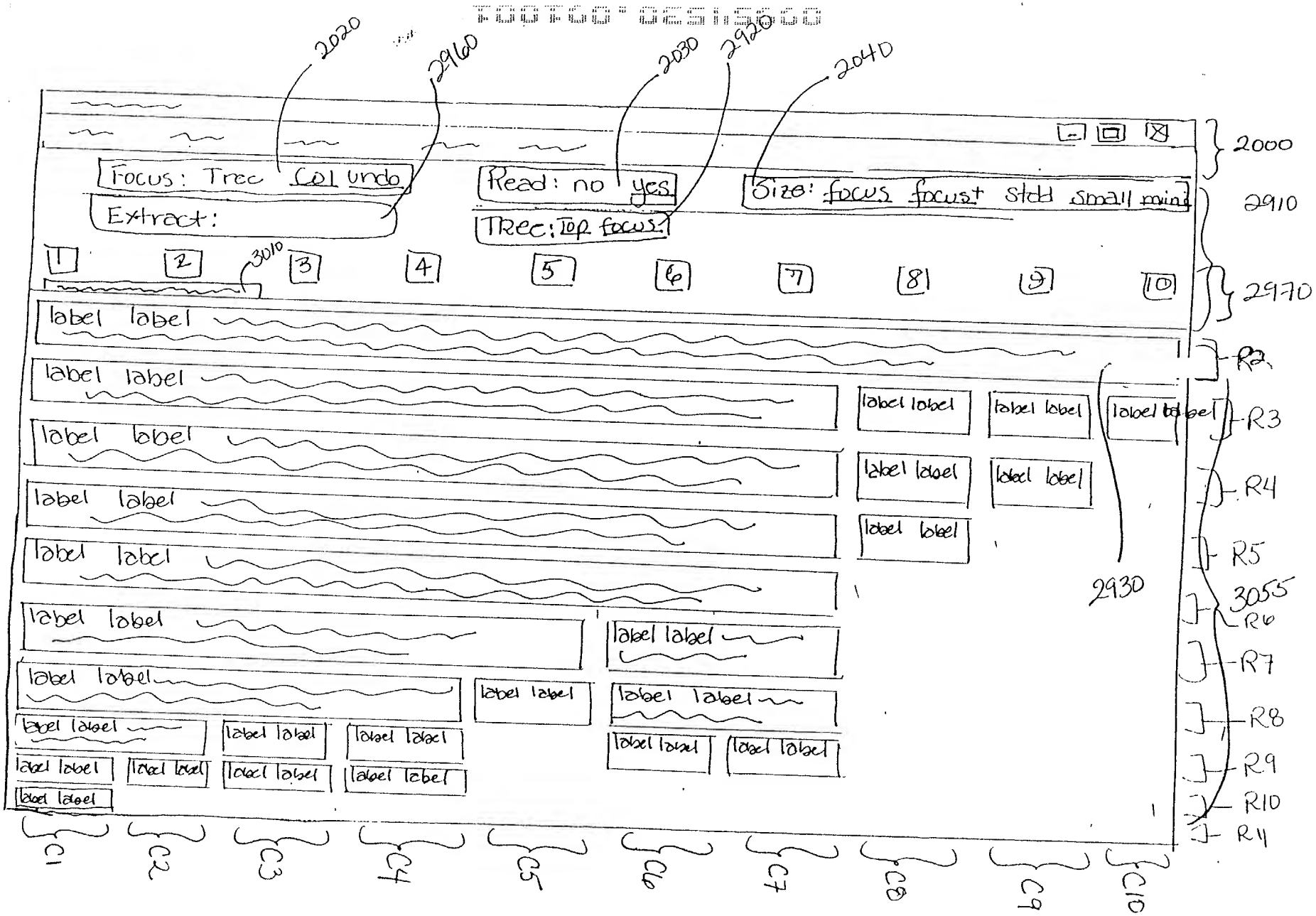

2020
2960
2030
2920
2040
Focus: Tree Col Undo
Extract:
Read: no yes
Tree: Top focus?
Size: focus focus+ std small mini
2000
2910
2970
3010
1
2
3
4
5
6
7
8
9
10
label label
2930
3055
R2
R3
R4
R5
R6
R7
R8
R9
R10
R11
C1
C2
C3
C4
C5
C6
C7
C8
C9
C10

Fig 11

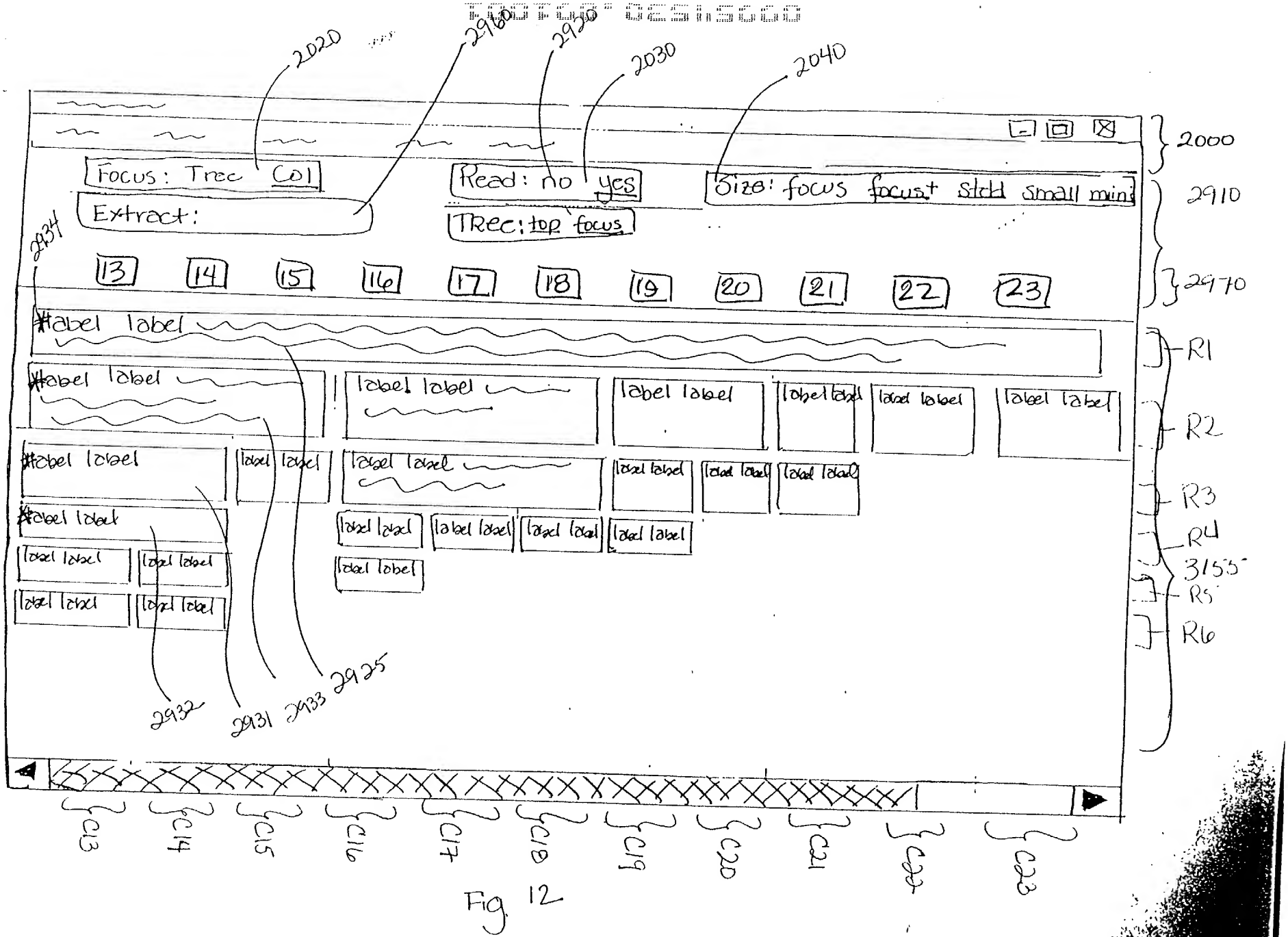

2020
2030
2040
2000
Focus: Trec C01
Read: no yes
Size: focus focus+ stdd small mini
2910
Extract:
Trec: top focus
2934
13
14
15
16
17
18
19
20
21
22
23
2970
label label
R1
R2
R3
R4
3155
R5
R6
2932
2931
2933
2925
C13
C14
C15
C16
C17
C18
C19
C20
C21
C22
C23

Fig. 12

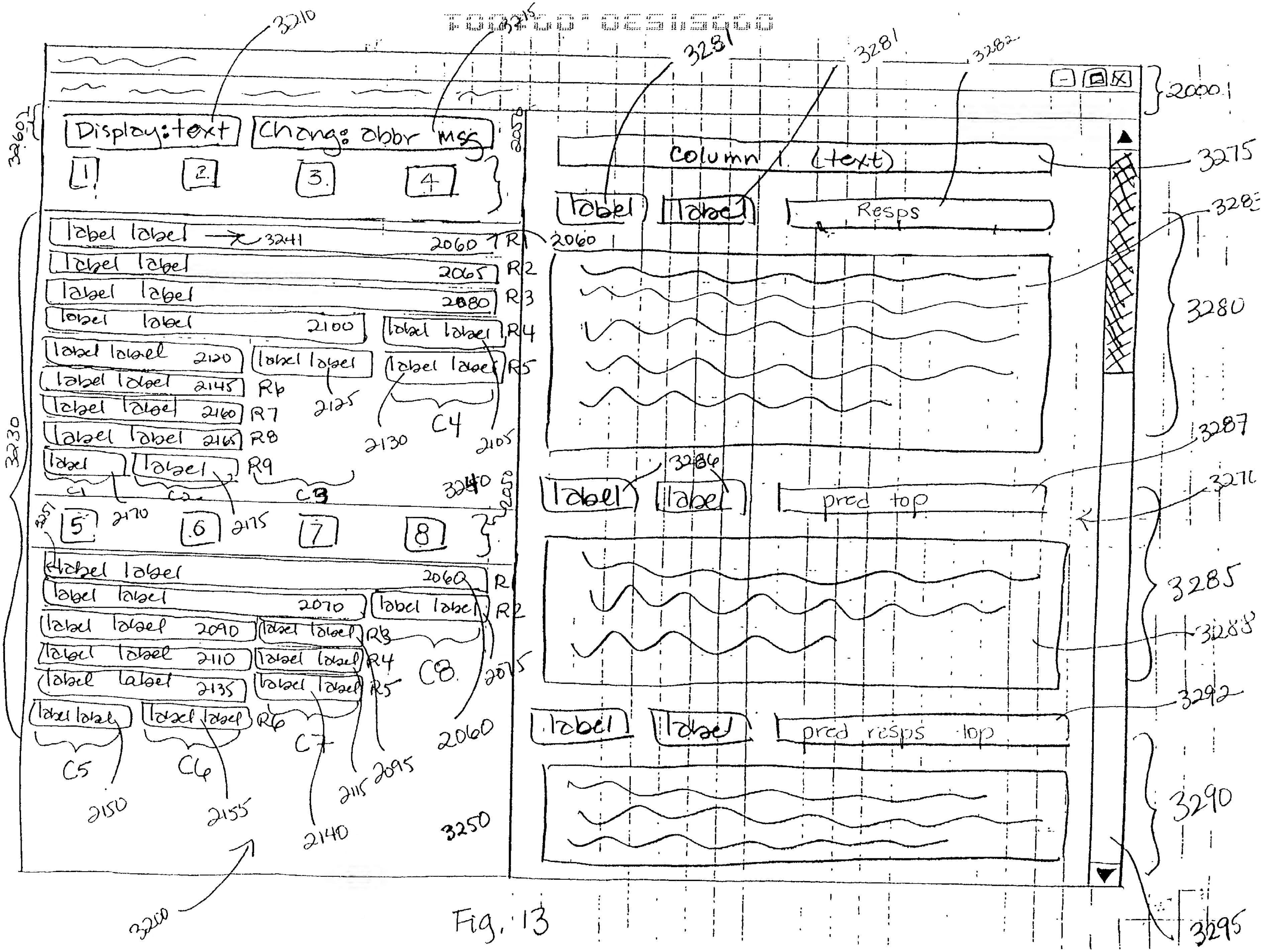

Display: text
Chang: abbr msg
1
2
3
4
5
6
7
8
label
Column 1 (text)
Resps
pred top
pred resps top
R1
R2
R3
R4
R5
R6
R7
R8
R9
C4
C8
C5
C6
C7
3210
3215
3281
3282
3275
3283
3280
3287
3286
3271
3285
3288
3292
3290
3295
2000
3260
3230
3241
3250
2060
2065
2080
2100
2120
2125
2130
2105
2145
2160
2165
2170
2175
2070
2090
2110
2135
2150
2155
2140
2115
2095
2075
3240

Fig. 13

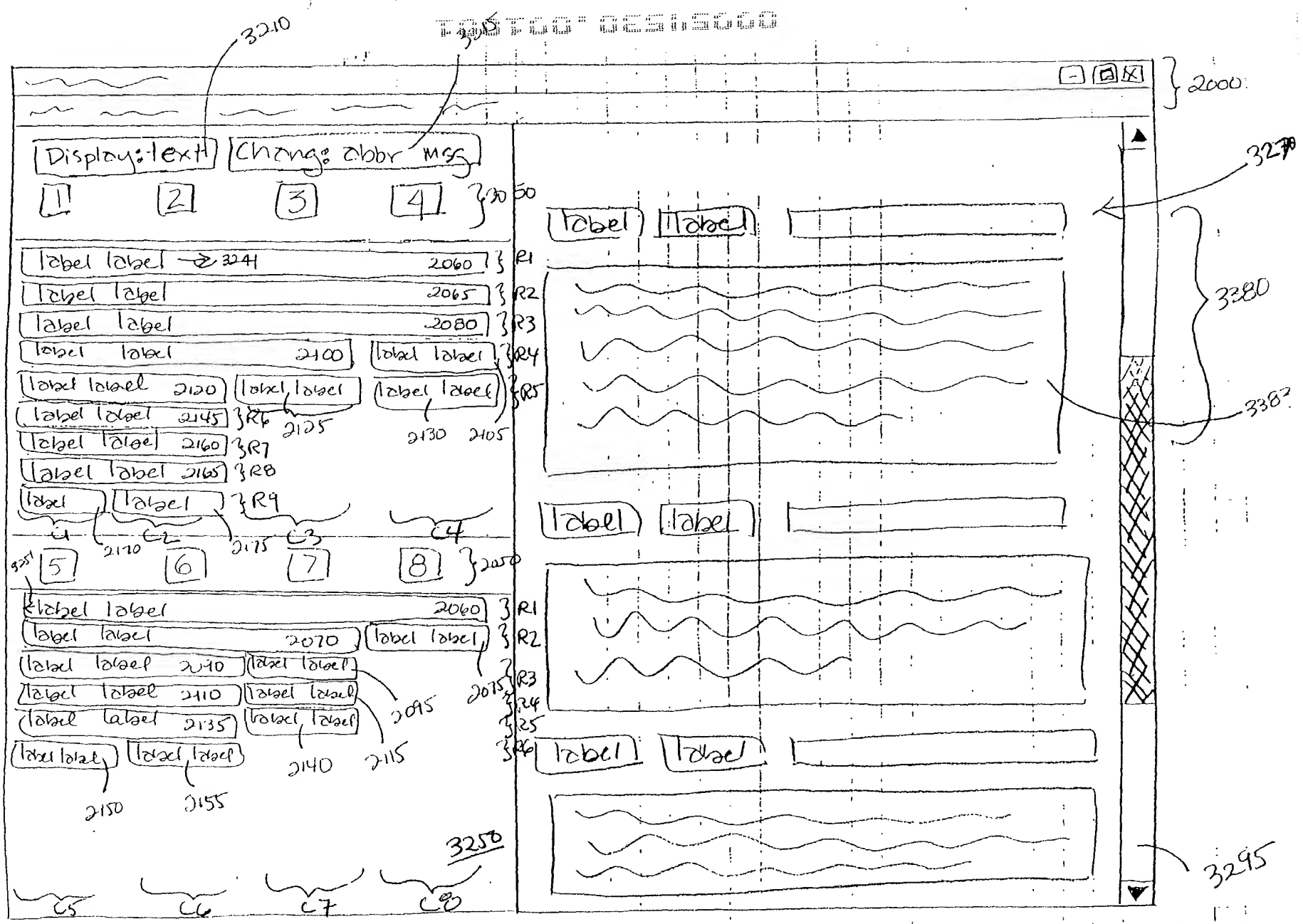

3210
3205
2000
Display: text
Change: abbr MSG
1
2
3
4
3250
label label
2060
2065
2080
2100
2120
2145
2160
2165
2125
2130
2105
2170
2175
2135
2140
2115
2150
2155
2095
2070
2075
3270
3280
3285
3295
C1
C2
C3
C4
C5
C6
C7
C8
R1
R2
R3
R4
R5
R6
R7
R8
R9

Fig. 14

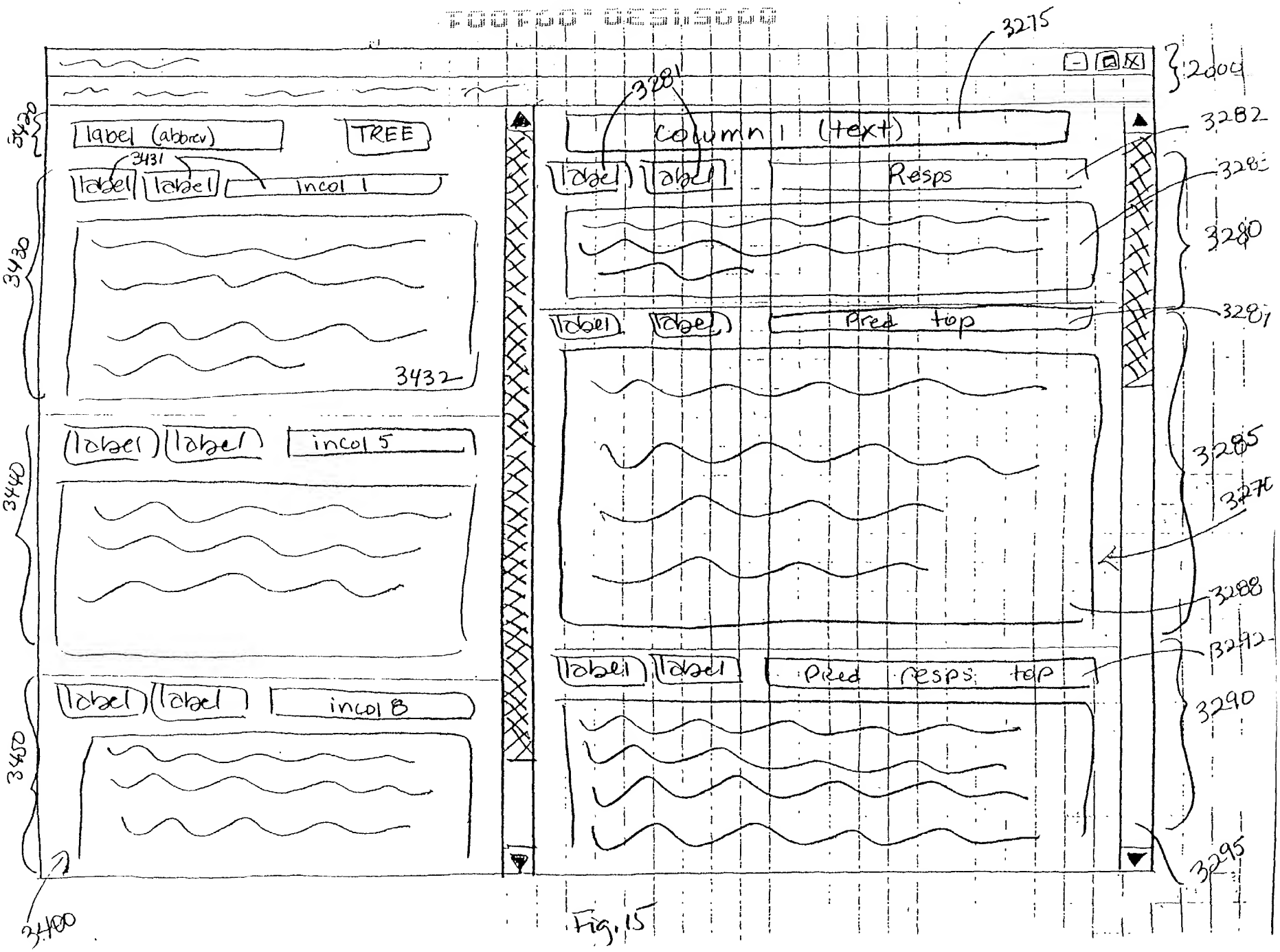

label (abbrev)
TREE
label
label
incol 1
3431
3432
label
label
incol 5
label
label
incol 8
column 1 (text)
label
label
Resps
label
label
Pred top
label
label
Pred resps top
3400
3420
3430
3440
3450
3275
3281
3282
3283
3280
3284
3285
3270
3288
3292
3290
3295
3200

Fig. 15

Figure 16. Major Processes

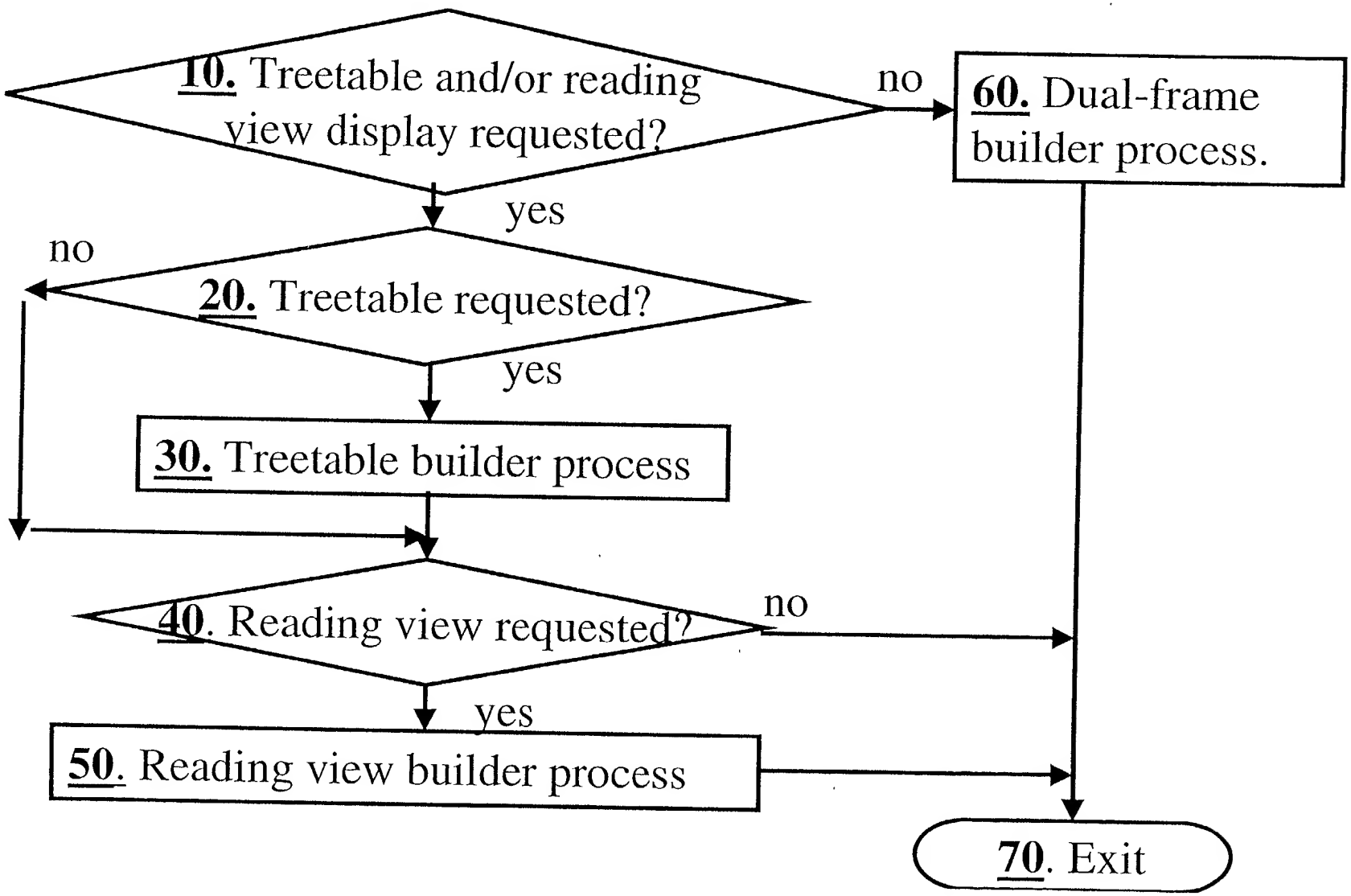


Figure 17. Treetable Builder Process

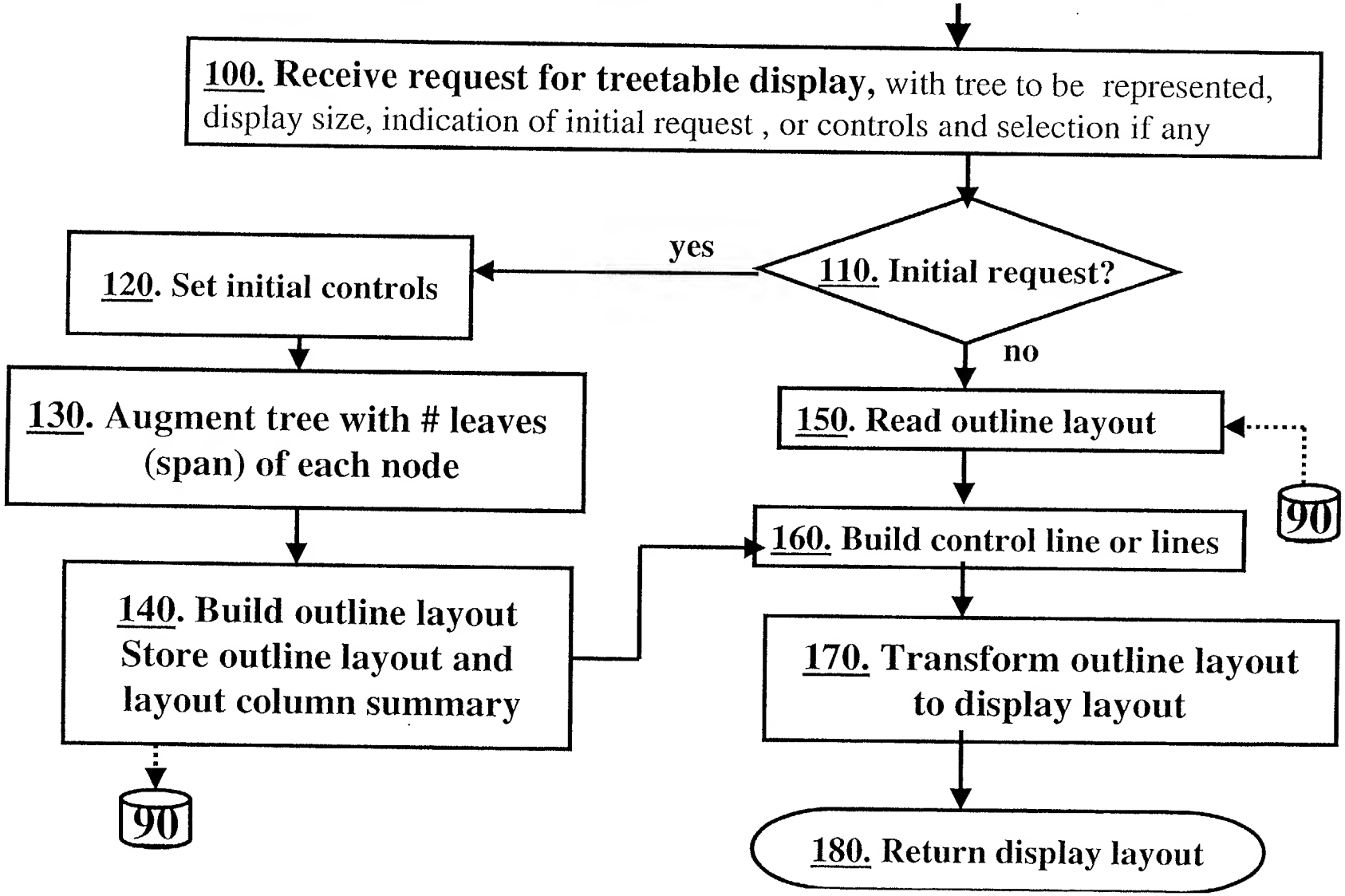


Figure 18: Build outline layout

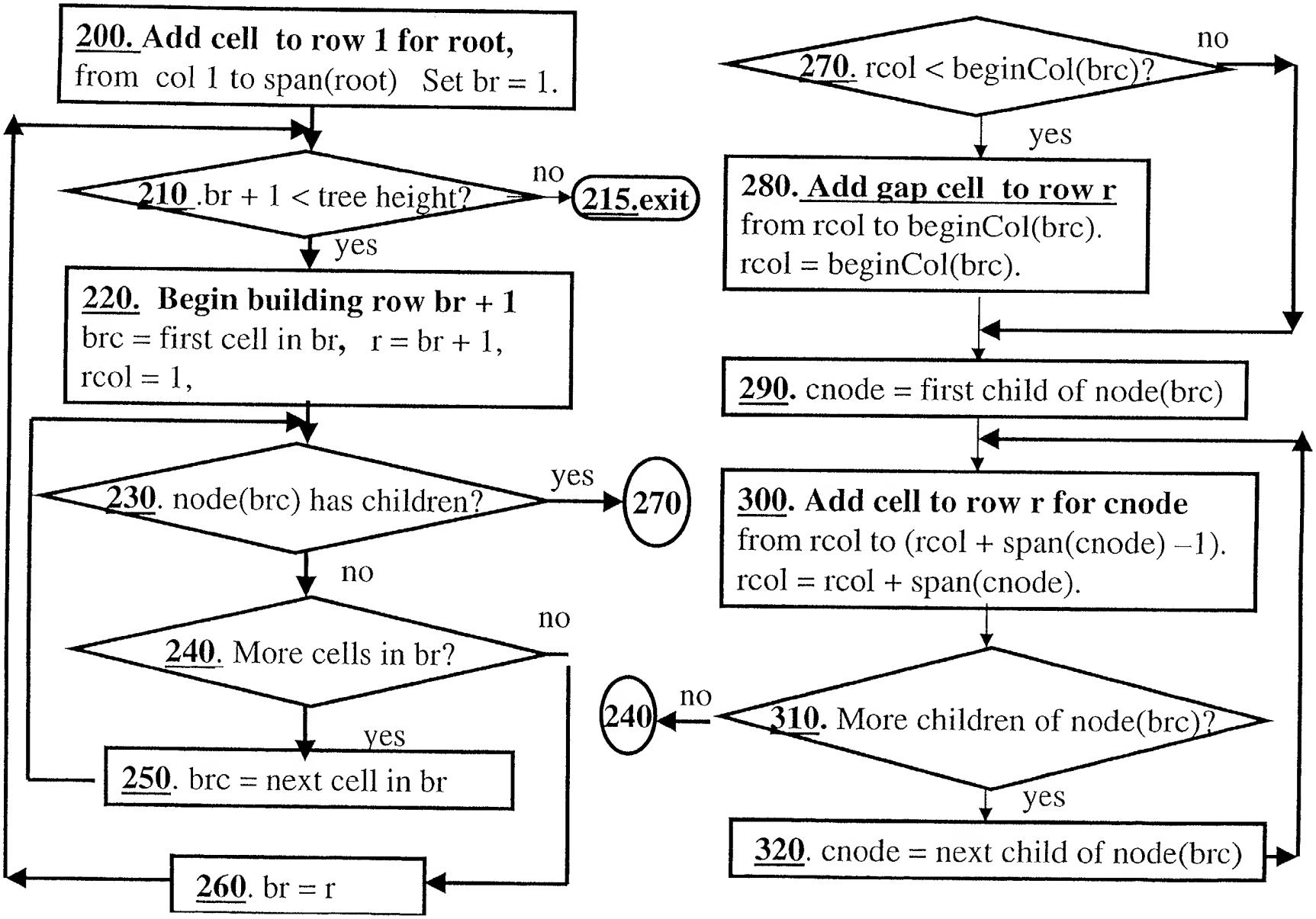
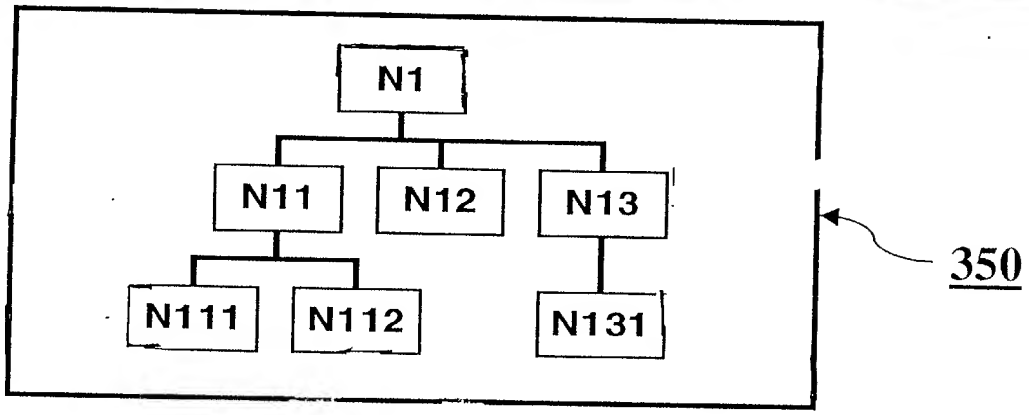


Figure 19: during outline layout build



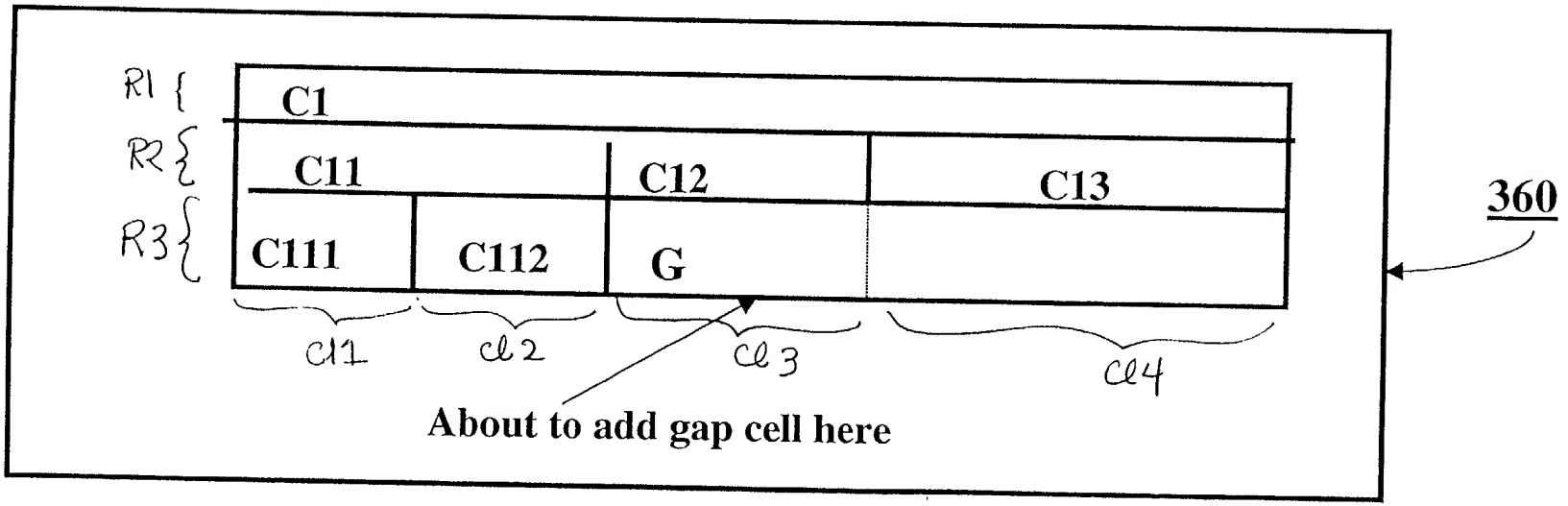


Figure 20: transform outline to display layout

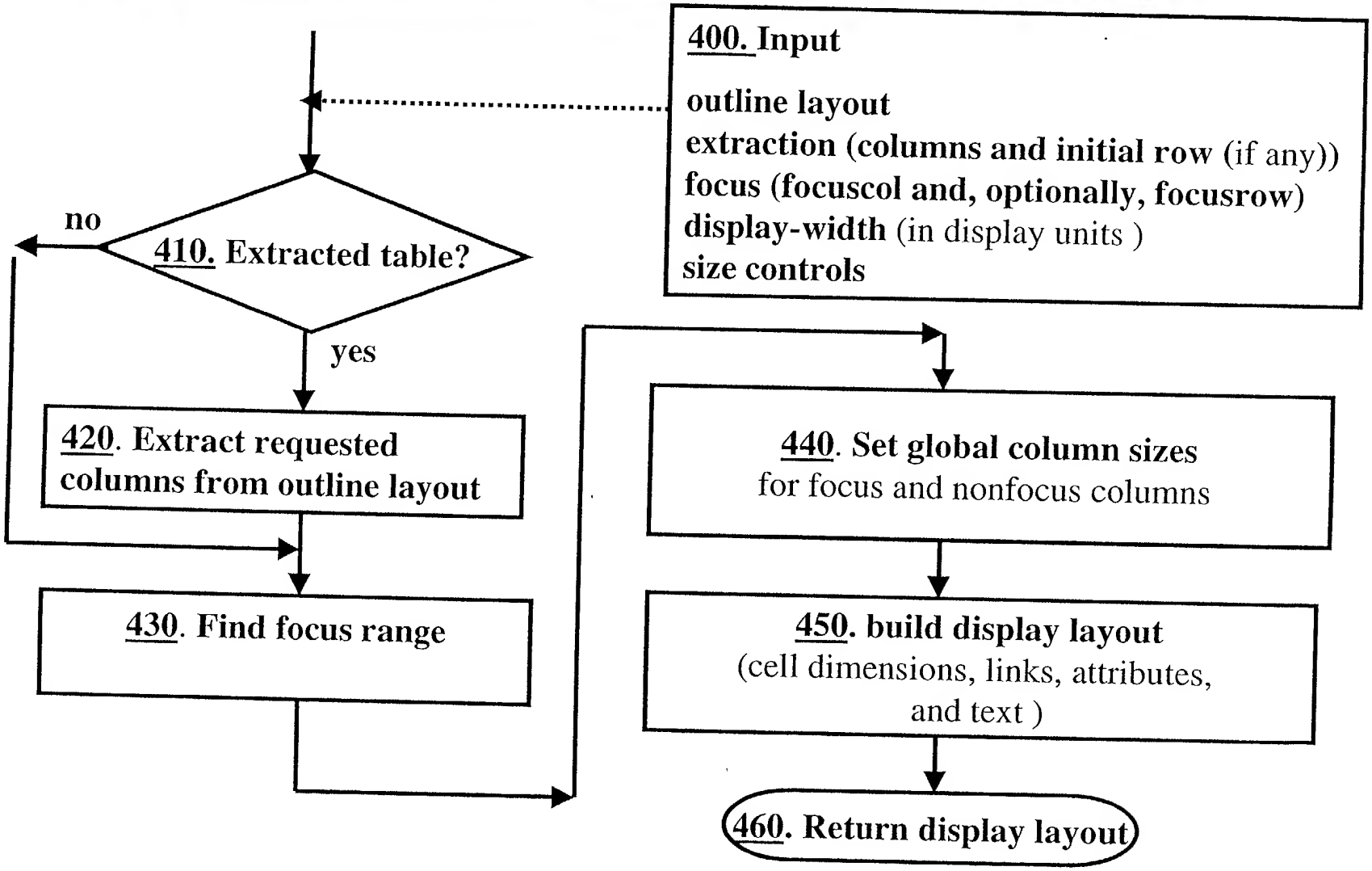


Figure 21: find focus range

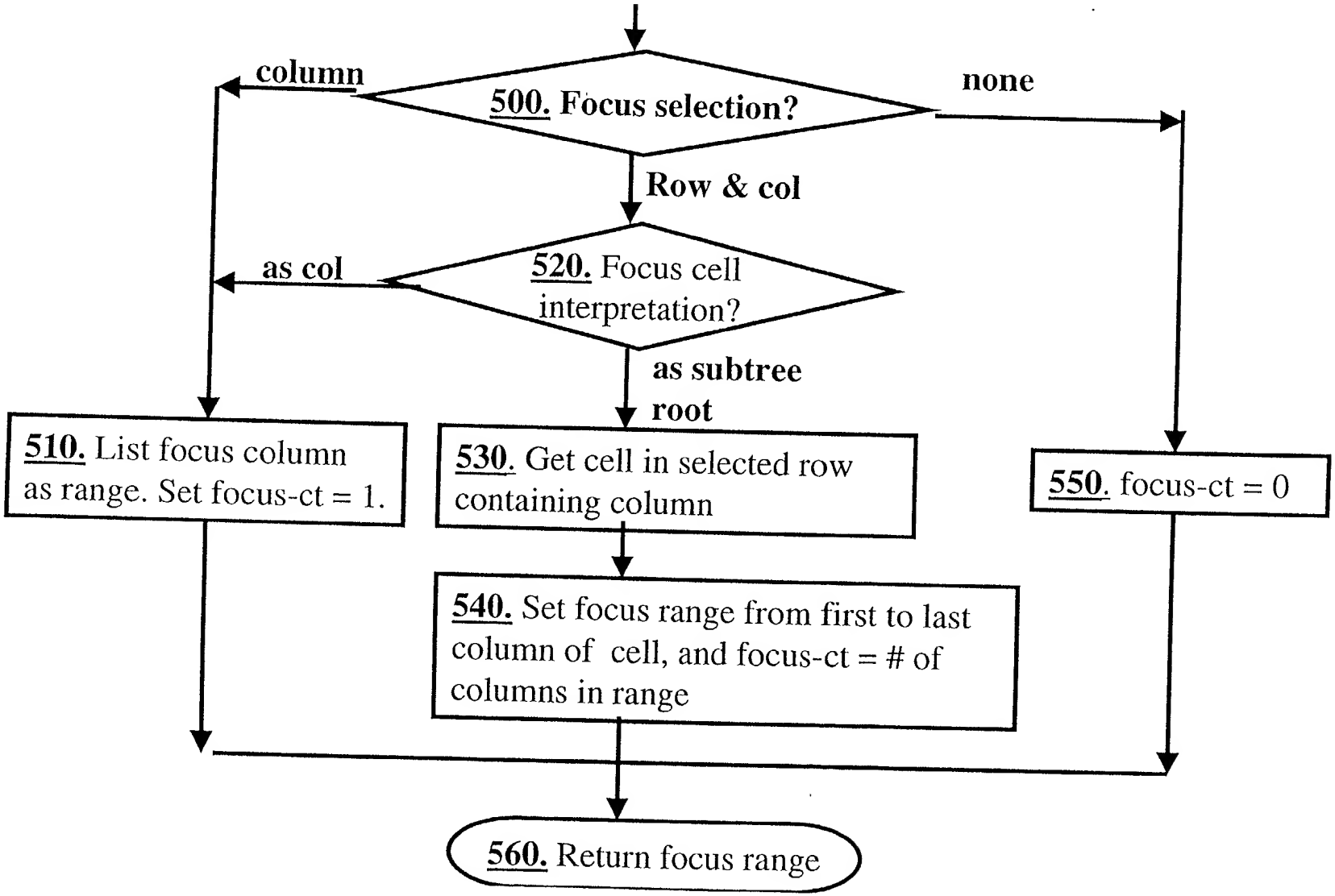


Figure 22: set global column sizes

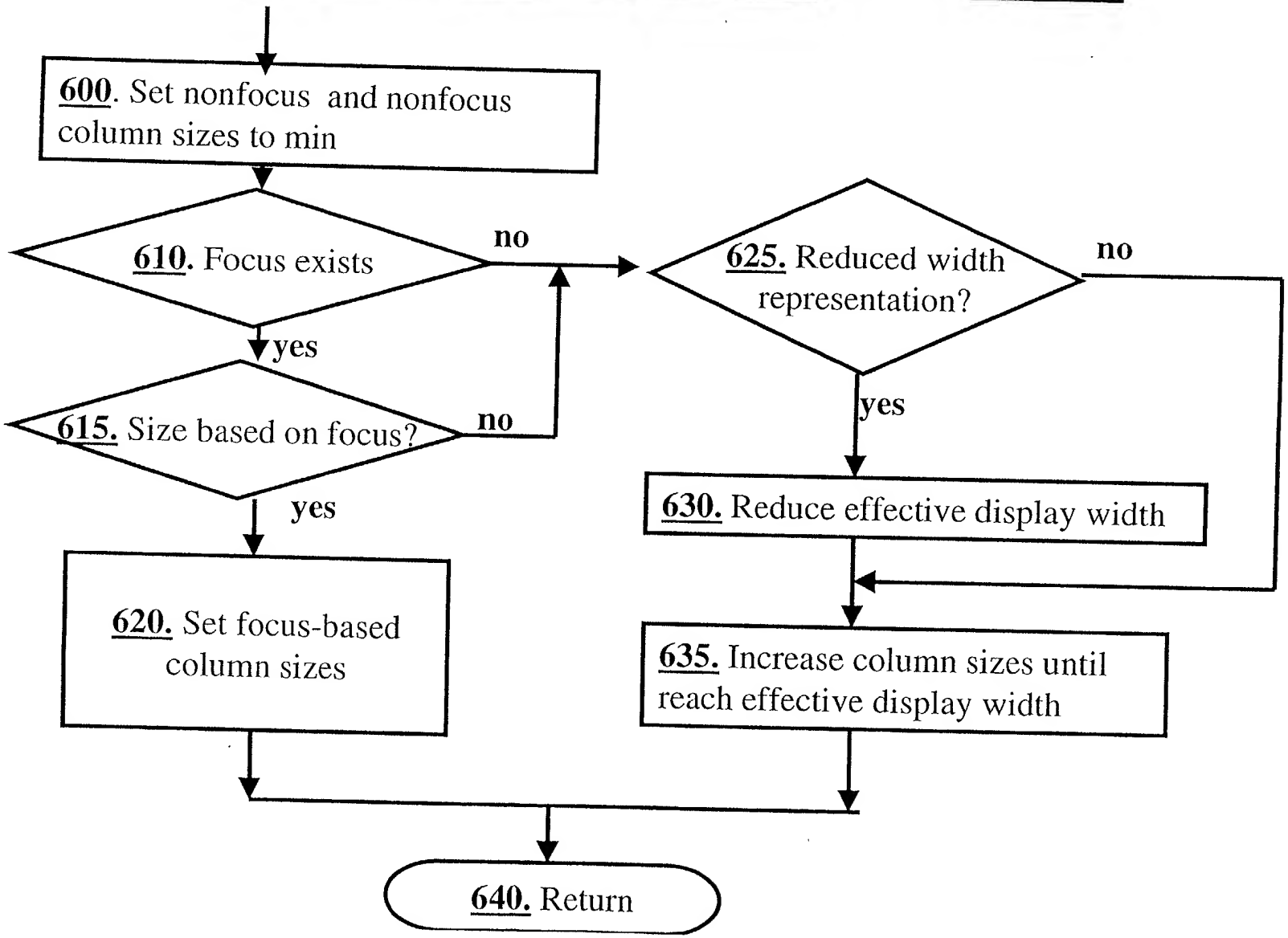


Figure 23: set focus-based column sizes

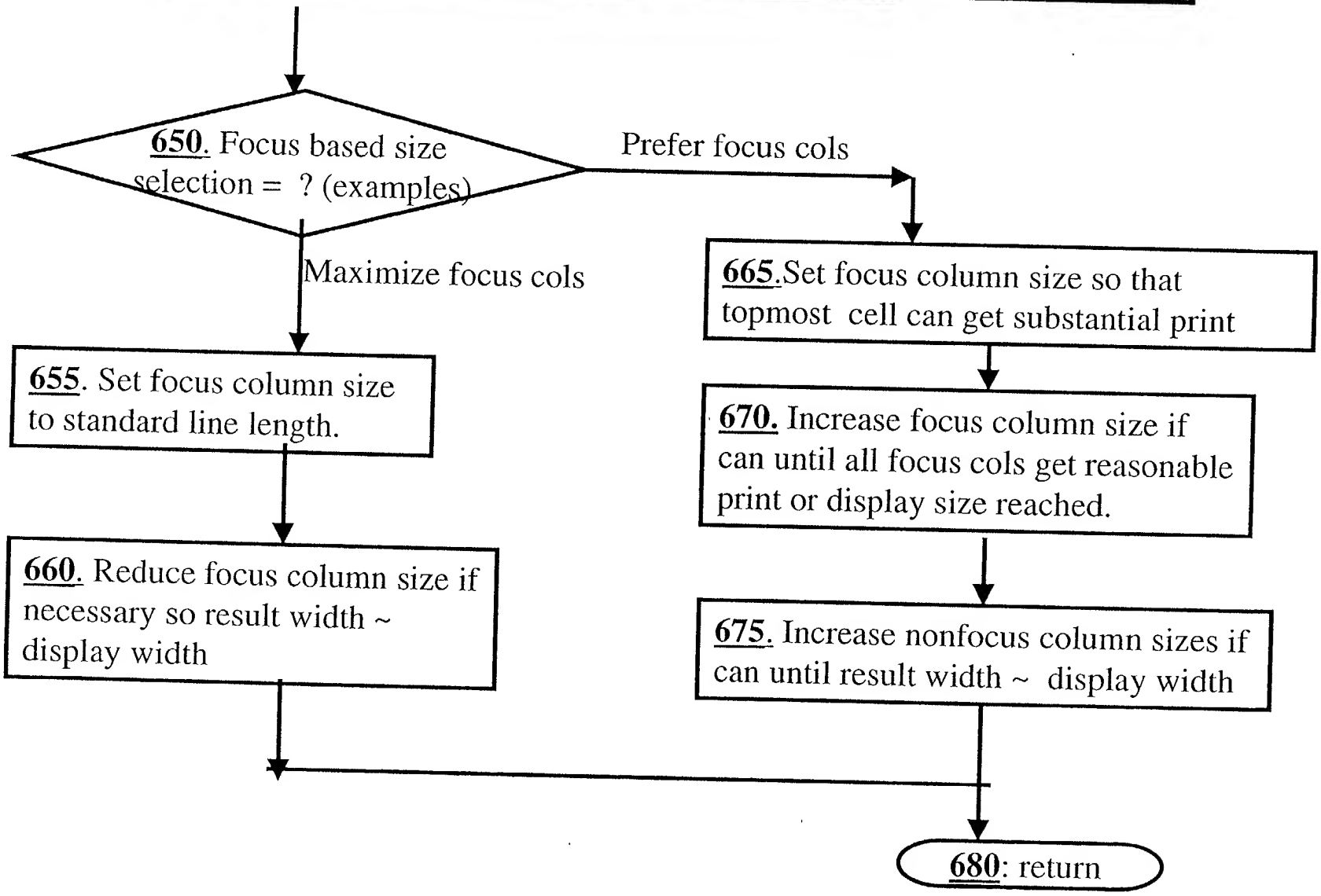


Figure 24: build display layout

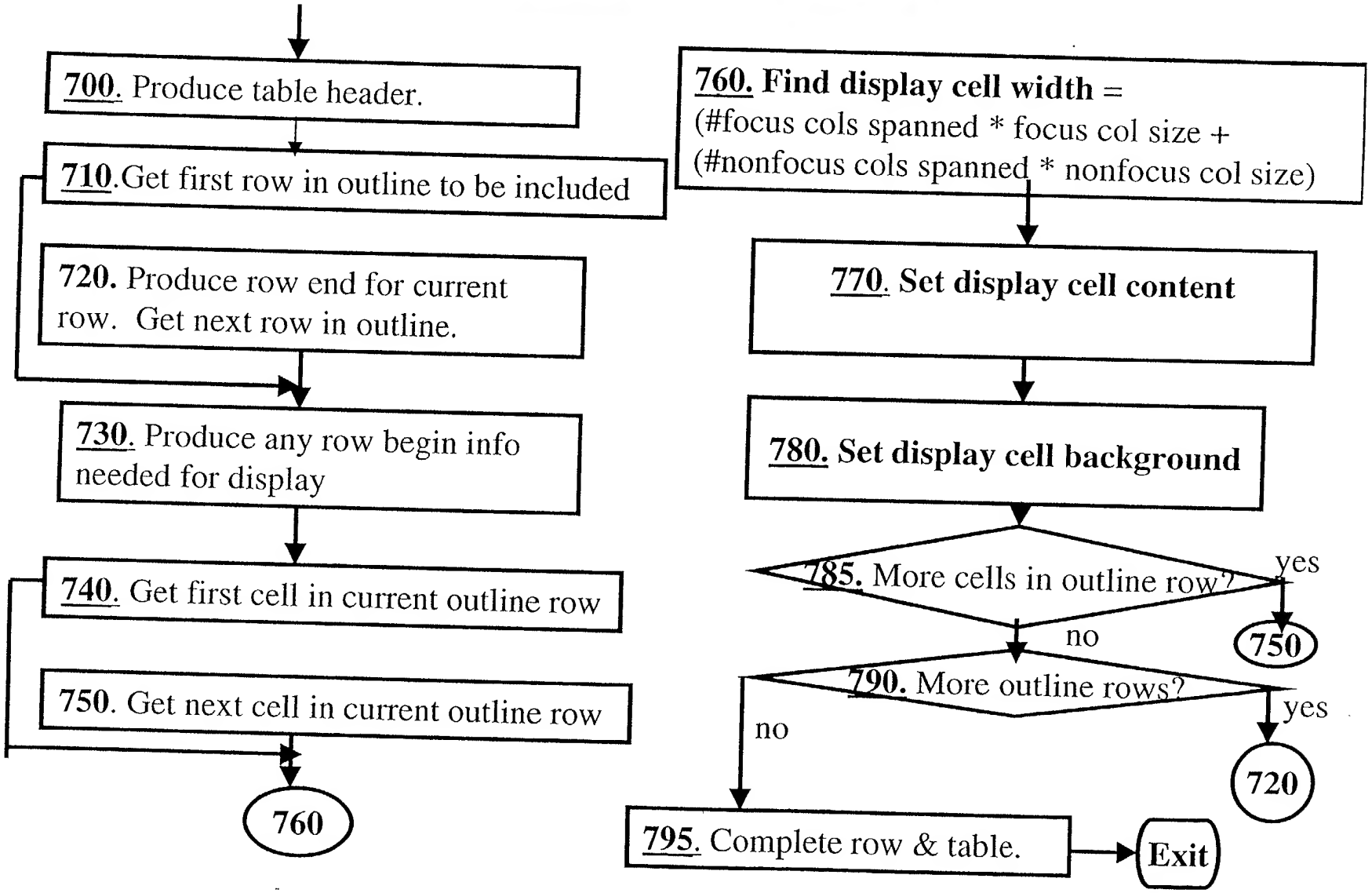


Figure 25: set display cell content

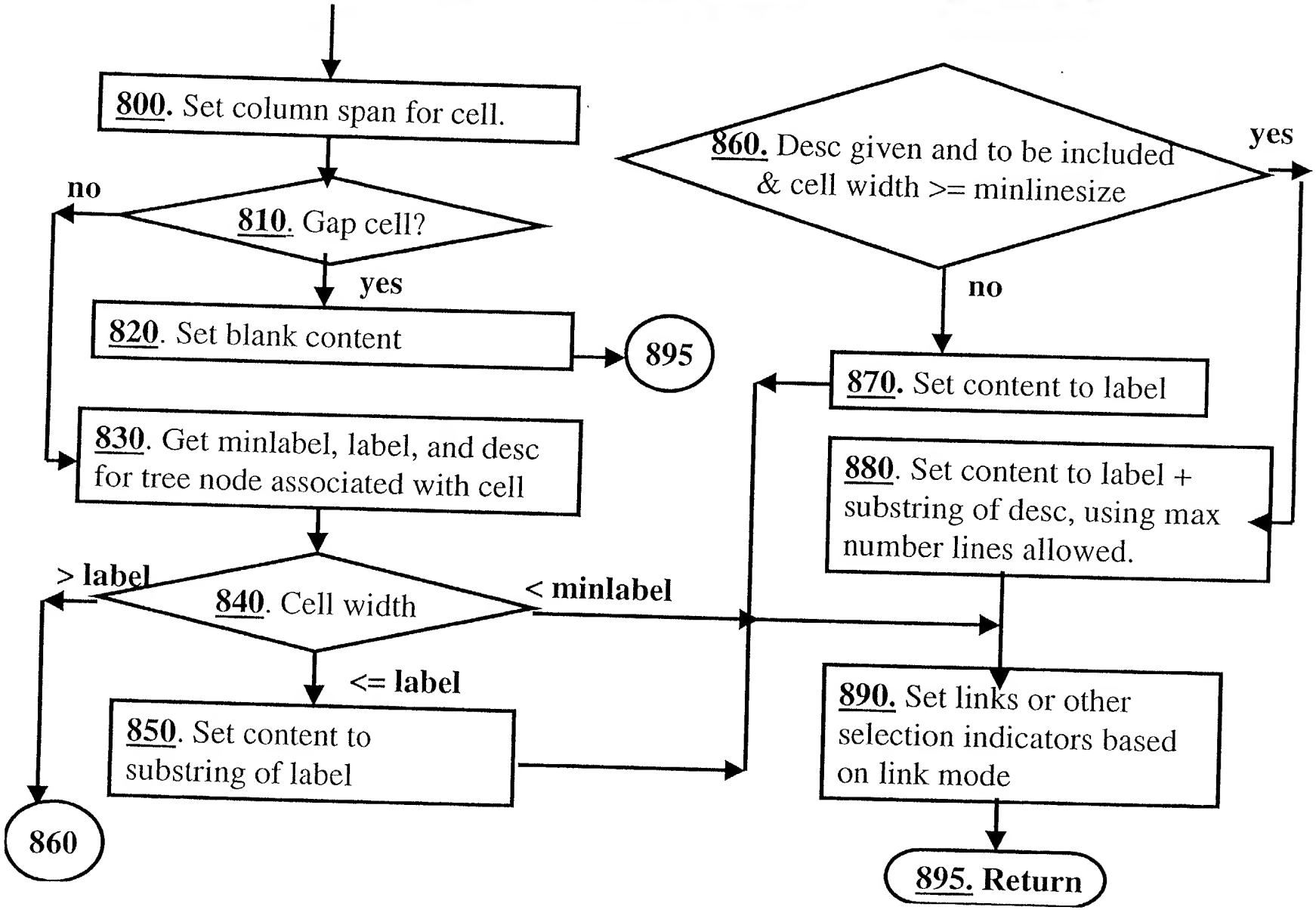


Figure 26. Set display cell background

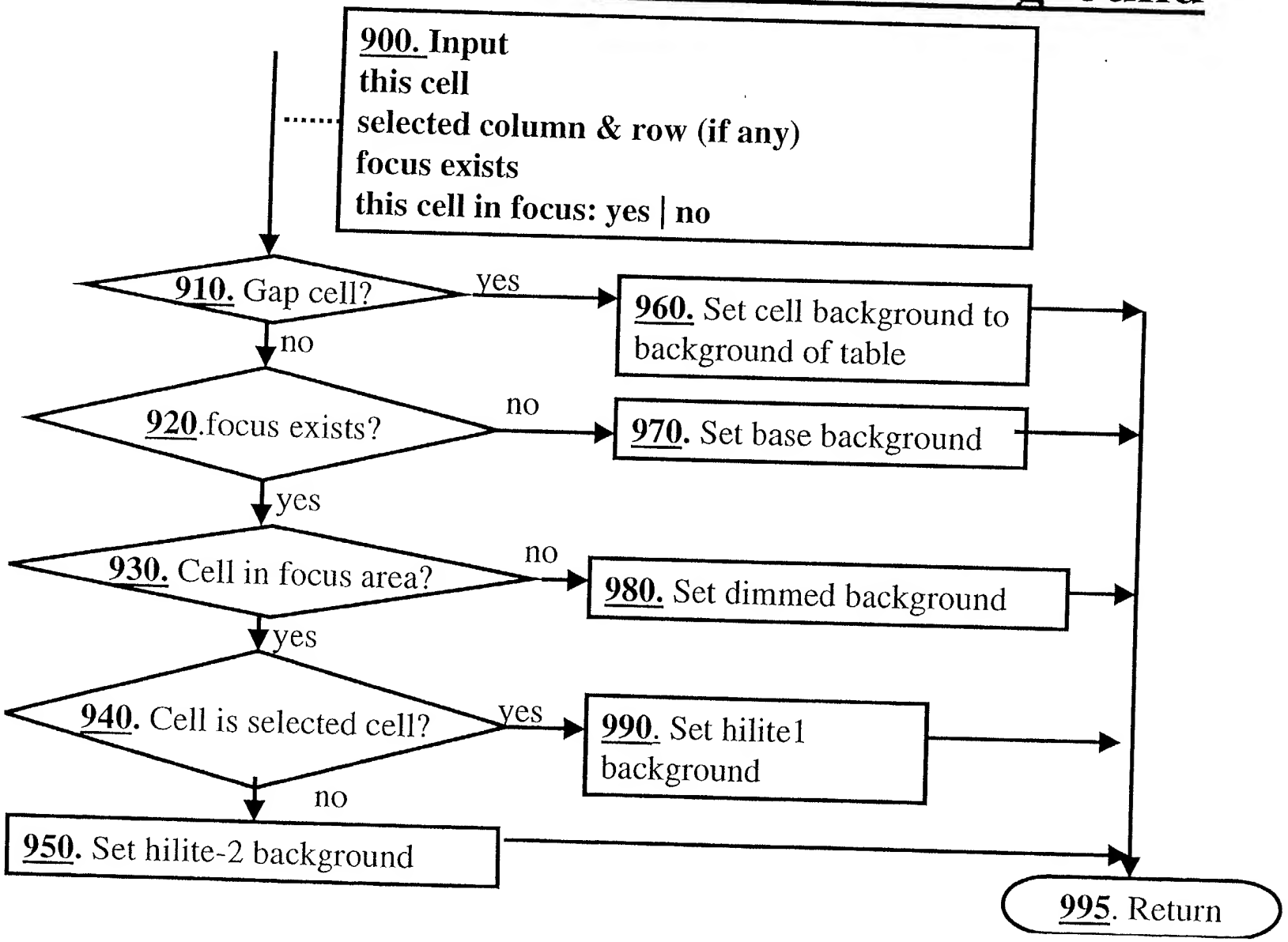


Figure 27. Dual frame builder process

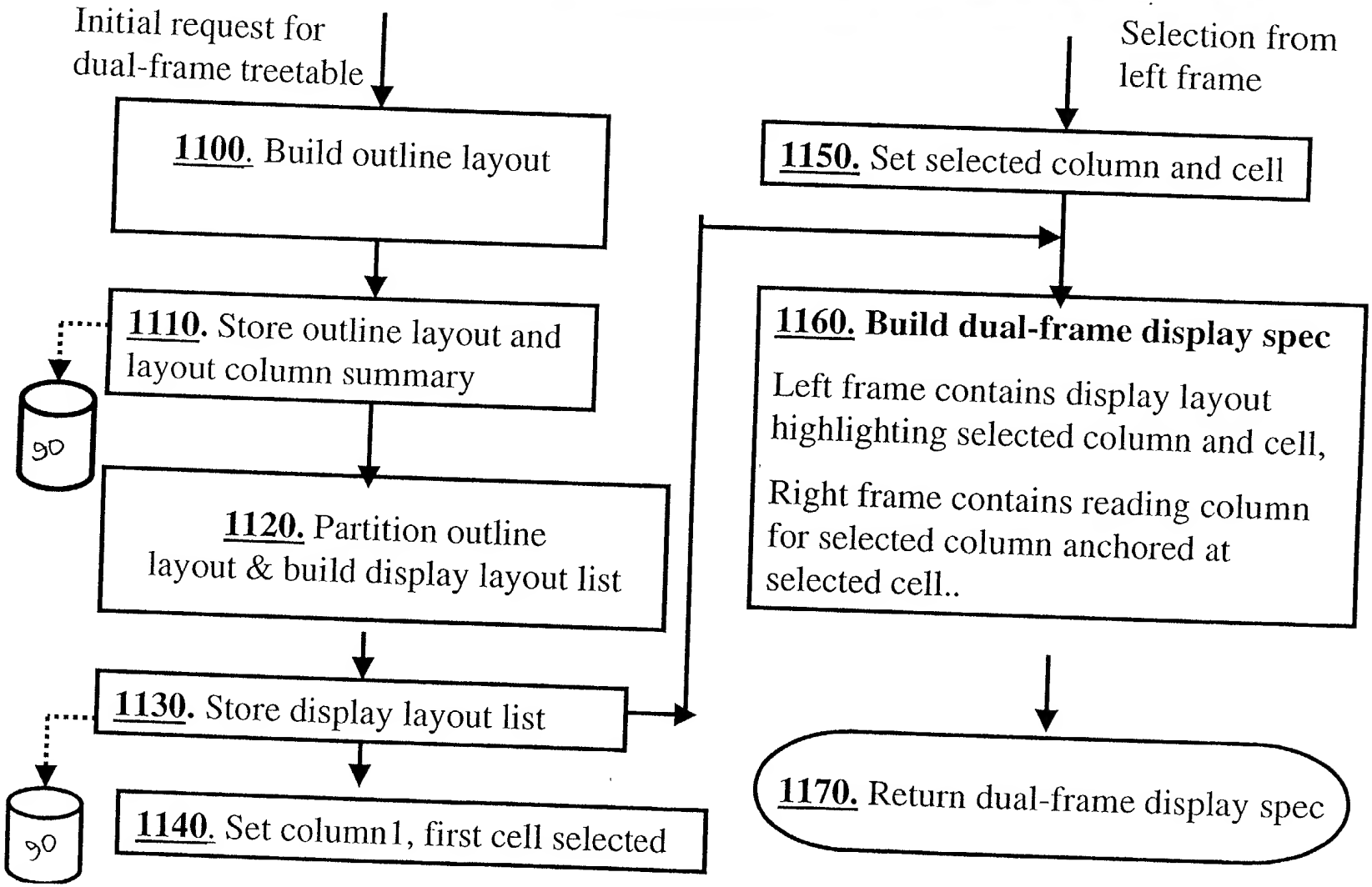


Figure 28: build display layout list

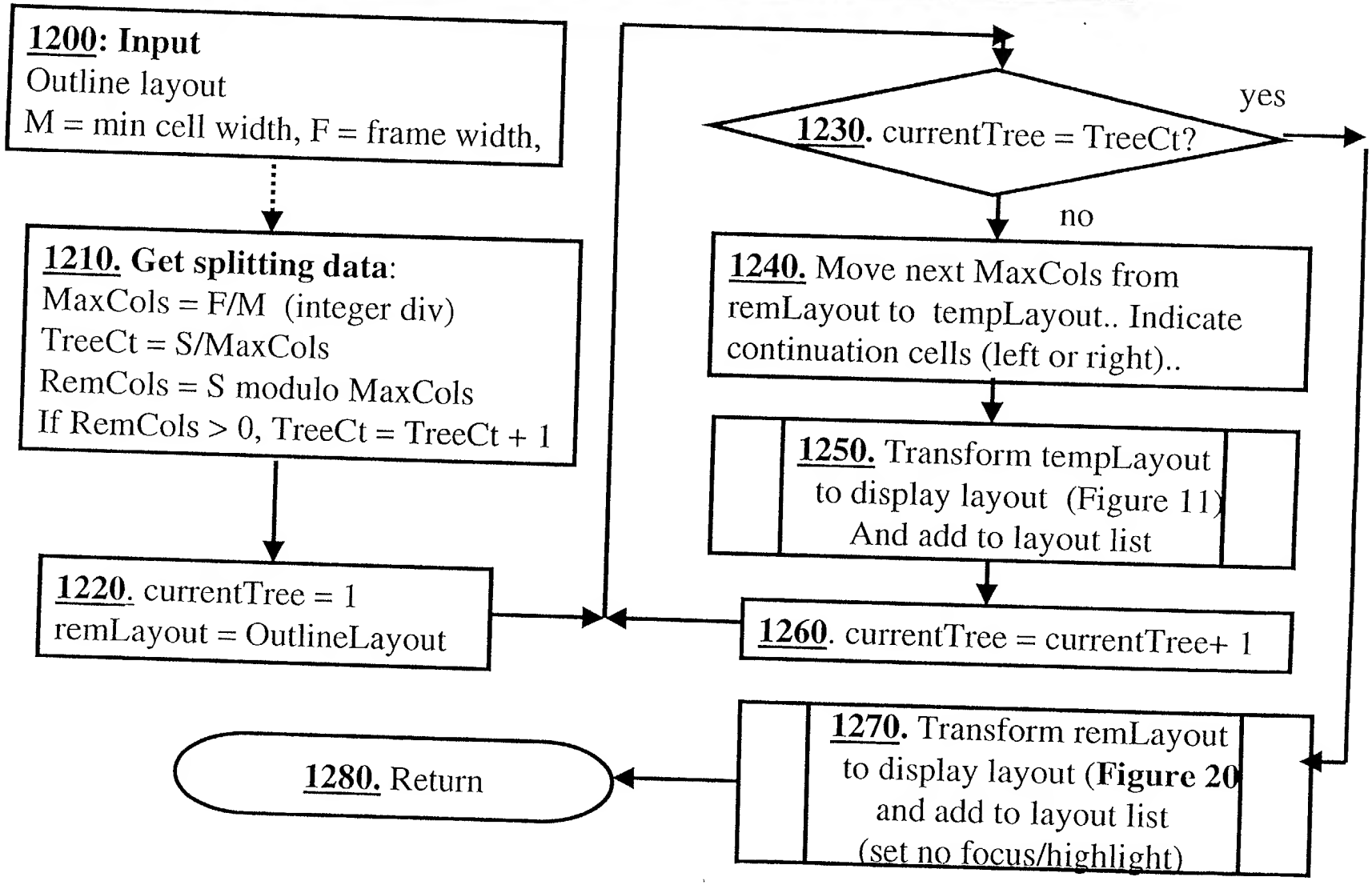


Figure 29. produce vertically partitioned treetable

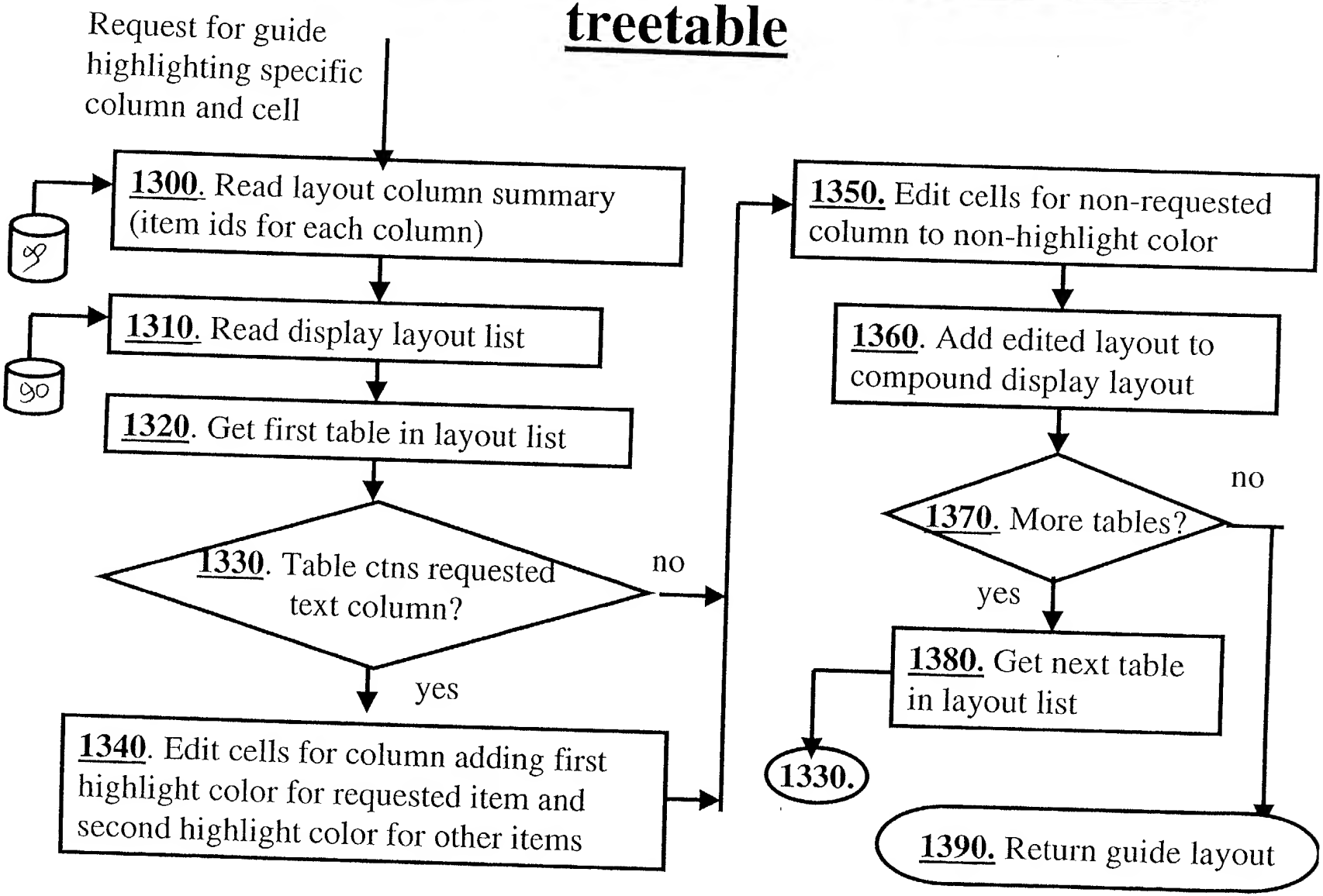


Figure 30. Reading View Builder Process

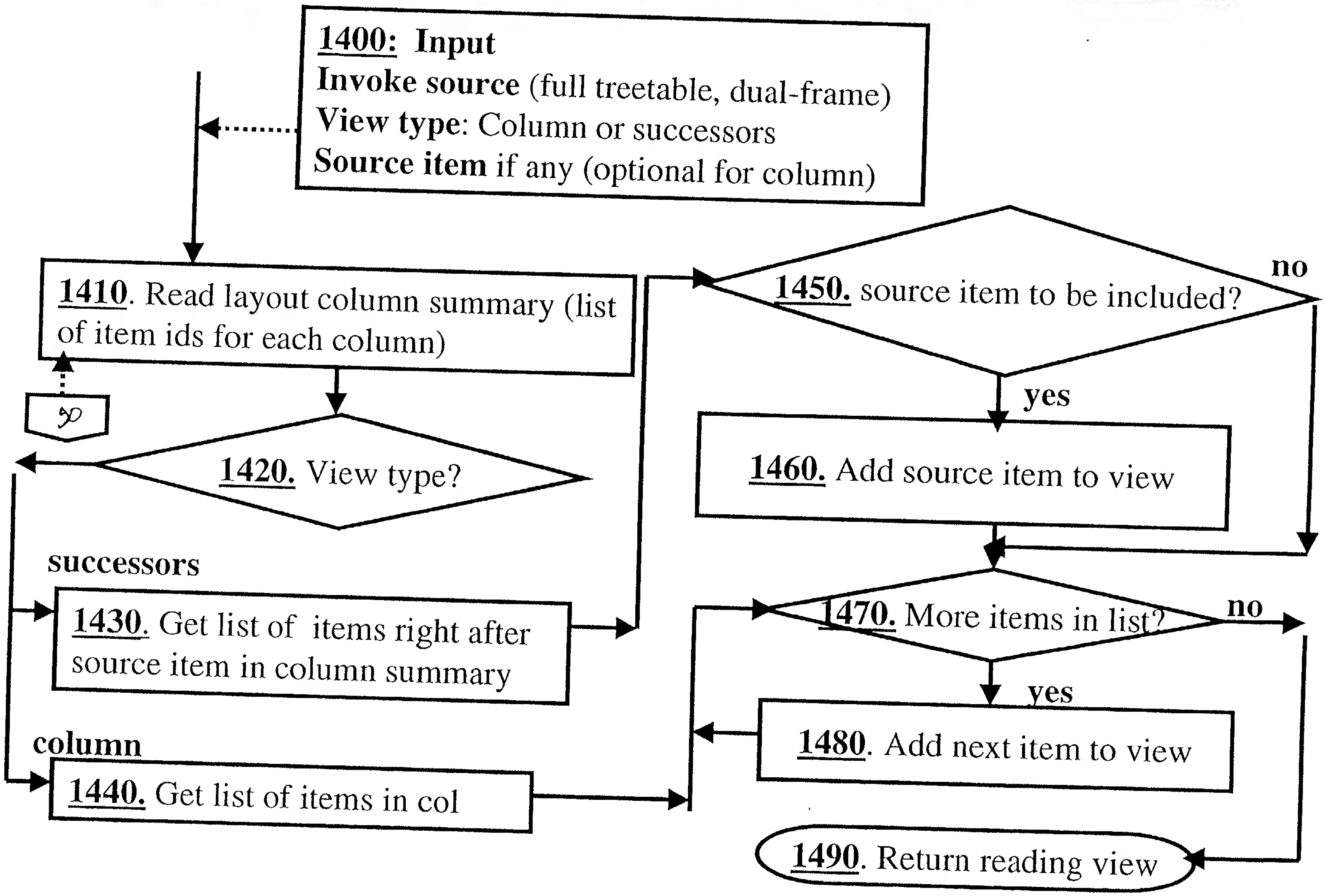


Figure 31. Add item to reading view